Civil Aviation Authority of Sri Lanka

FLIGHT TEST EXAMINER HANDBOOK PART 3

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CHAPTER 1: PRIVATE PILOT LICENCE (PPL)

SINGLE ENGINE LAND AND SINGLE ENGINE SEA ADDITIONAL RATING TASK TABLES

a). Aeroplane Single-Engine Land

Addition of an Aeroplane Single-Engine Land Rating to an existing Private Pilot License

Required **TASKs** are indicated by either the **TASK** letter(s) that apply(s) or an indication that all or none of the **TASKs** must be tested based on the notes in each **AREA OF OPERATION.**

PRIVATE PILOT RATING (S) HELD

AREAS OF	ASES	AMEL	AMES	RH	RG	Glider	Balloon	Airship
I	F,G	F,G	F,G	F,G	F,G	F,G	F,G	F,G
II	D	NONE	D	A,C,D,F	A,D,F	A,B,C,D, F	A,B,C,D, F	A,B,C,D, F
III	C	NONE	C	B,C	NONE	B,C	B,C	B,C
IV	A,B,C,D, E,F	A,B,C,D, E,F	A,B,C,D, E,F	A,B,C,D, E,F,K,L	A,B,C,D, E,F,K,L	A,B,C,D, E,F,K,L	A,B,C,D, E,F,K,L	A,B,C,D, E,F,K,L
V	NONE	NONE	NONE	ALL	ALL	ALL	ALL	ALL
VI	NONE	NONE	NONE	ALL	NONE	ALL	ALL	ALL
VII	NONE	NONE	NONE	NONE	NONE	ALL	ALL	NONE
VIII	NONE	NONE	NONE	ALL	ALL	ALL	ALL	ALL
IX	NONE	NONE	NONE	ALL	ALL	ALL	ALL	ALL
X	A,B	A,B	A,B	ALL	ALL	ALL	ALL	ALL
XI	NONE	NONE	NONE	NONE	NONE	ALL	ALL	ALL
XII	A	NONE	A	A	A	A	A	A

b). Aeroplane Single-Engine Sea

Addition of an Aeroplane Single-Engine Sea Rating to an existing Private Pilot Certificate

Required **TASKs** are indicated by either the **TASK** letter(s) that apply(s) or n indication that all or none of the **TASKs** must be tested based on the notes in each **AREA OF OPERATION**.

PRIVATE PILOT RATING (S) HELD

AREAS OF	ASEL	AMEL	AMES	RH	RG	Glider	Balloon	Airship
I	F,G,H,I	F,G,H,I	F,G	F,G,H,I	F,G,H,I	F,G,H,I	F,G,H,I	F,G,H,I
II	E	E	E	A,B,C,E, F	A,B,E,F	A,B,C,E, F	A,B,C,E, F	A,B,C,E, F
III	C	C	NONE	B,C	C	B,C	B,C	B,C
IV	A,B,E,F, G,H,I,J	A,B,E,F, G,H,I,J	A,B,E,F, G,H,I,J	A,B,E,F, G,H,I,J,K	A,B,E,F, G,H,I,J,K	A,B,E,F, G,H,I,J,K	A,B,E,F, G,H,I,J,K	A,B,E,F, G,H,I,J,K
V	NONE	NONE	NONE	ALL	ALL	ALL	ALL	ALL
VI	NONE	NONE	NONE	ALL	NONE	ALL	ALL	ALL
VII	NONE	NONE	NONE	NONE	NONE	ALL	ALL	NONE
VIII	NONE	NONE	NONE	ALL	ALL	ALL	ALL	ALL
IX	NONE	NONE	NONE	ALL	ALL	ALL	ALL	ALL
X	A,B	A,B	A,B	ALL	ALL	ALL	ALL	ALL
XI	NONE	NONE	NONE	NONE	NONE	ALL	ALL	ALL
XII	B,C,D	B,C,D	NONE	B,C,D	B,C,D	B,C,D	B,C,D	B,C,D

I. AREA OF OPERATION: PREFLIGHT PREPARATION

NOTE: The examiner shall develop a scenario based on real time weather to evaluate TASKs C and D.

A.TASK: LICENCES AND DOCUMENTS (ASEL and ASES)

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

1. Explaining-

   a. Private pilot licence privileges, limitations, and recent flight experience requirements.
   b. Medical licence class and duration.
   c. Pilot logbook or flight records.

2. Locating and explaining-

   a. Airworthiness and registration licences.
   b. Operating limitations, placards, instrument markings, and POH/AFM.
   c. Mass and balance data and equipment list.

B. TASK: AIRWORTHINESS REQUIREMENTS (ASEL and ASES)

Objective: To determine that the applicant exhibits knowledge of the elements related to airworthiness requirements by:

1. Explaining-

   a. Required instruments and equipment for day/night VFR.
   b. Procedures and limitations for determining airworthiness of the aeroplane with inoperative instruments and equipment with and without an MEL.
   c. Requirements and procedures for obtaining a special flight permit.

2. Locating and explaining-

   a. Airworthiness directives.
   b. Compliance records.
   c. Maintenance/inspection requirements.
   d. Appropriate record keeping.

C. TASK: WEATHER INFORMATION (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to weather information by analyzing weather reports, charts, and forecasts from various sources with emphasis on-

a. METAR, TAF, and FA.
b. Surface analysis chart.
c. Radar summary chart.
d. Winds and temperature aloft chart.
e. Significant weather prognostic charts.
f. Convective outlook chart.
g. Automated Aviation Weather Reports and Terminal Information Service (If Available)

2. Makes a competent "go/no-go" decision based on available weather information.

D. TASK: CROSS-COUNTRY FLIGHT PLANNING (ASEL and ASES) Objective: To determine that the applicant:

Exhibits knowledge of the elements related to cross-country flight planning by presenting and explaining a pre-planned VFR cross- country flight, as previously assigned by the examiner. On the day of the skill test, the final flight plan shall be to the first fuel stop, based on maximum allowable passengers, baggage, and/or cargo loads using real-time weather.

Uses appropriate and current aeronautical charts.

Properly identifies airspace, obstructions, and terrain features.

Selects easily identifiable en route checkpoints.

Selects most favorable altitudes considering weather conditions and equipment capabilities

Computes headings, flight time, and fuel requirements.

Selects appropriate navigation system/facilities and communication frequencies. Applies pertinent information from NOTAMs and other flight publications. Completes a navigation log and simulates filing a VFR flight plan

E. TASK: NATIONAL AIRSPACE SYSTEM (ASEL and ASES)

Objective :To determine that the applicant exhibits knowledge of the elements related to the National Airspace System by explaining:

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 and other airspace areas.

F. TASK: PERFORMANCE AND LIMITATIONS (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to performance and limitations by explaining the use of charts, tables, and data to determine performance and the adverse effects of exceeding limitations.

2. Computes mass and balance. Determines the computed mass and centre of gravity is within the aeroplane's operating limitations and if the mass and centre of gravity will remain within limits during all phases of flight.

3. Demonstrates use of the appropriate performance charts, tables, and data.

4. Describes the effects of atmospheric conditions on the aeroplane's performance.

G. TASK: OPERATION OF SYSTEMS (ASEL and ASES)

Objective: To determine that the applicant exhibits knowledge of the elements related to the operation of systems on the aeroplane provided for the flight test by explaining at least three (3) of the following systems.

1. Primary Flight Controls and Trim.

2. Flaps, Leading Edge Devices, and Spoilers.

3. Water Rudders (ASES).

4. Power plant and Propeller.

5. Landing Gear.

6. Fuel, Oil, and Hydraulic.

7. Electrical.

8. Avionics.

9. Pitot-Static Vacuum/Pressure and Associated Flight Instruments.

10. Environmental.

11. De-icing and Anti-Icing.

H. TASK: WATER AND SEAPLANE CHARACTERISTICS (ASES)

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

1. The characteristics of a water surface as affected by features, such as-

   a. Size and Location

   b. Protected and Unprotected Areas.

   c. Surface Wind.

   d. Direction and Strength Of Water Current.

   e. Floating and MCAR Partially Submerged Debris.

   f. Sandbars, Islands, and Shoals.

   g. Vessel Traffic and Wakes.

   h. Other Features Peculiar To The Area.

2. Float and hull construction, and their effect on seaplane performance.

3. Causes of porpoising and skipping, and the pilot action required to prevent or correct these occurrence.

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

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

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

2. Operating restrictions at various bases.

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

4. Marine navigation aids such as buoys, beacons, lights, and sound si.

J. TASK: AEROMEDICAL FACTORS (ASEL and ASES)

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

1. The symptoms, causes, effects, and corrective actions of at least three (3) of the following-

   a. Hypoxia.

   b. Hyperventilation.

   c. Middle Ear And Sinus Problems.

   d. Spatial DisorientatioN.

e. Motion Sickness.

f. Carbon Monoxide Poisoning.

g. Stress And Fatigue.

h. Dehydration.

2. The effects of alcohol, drugs, and over-the-counter medications.

3. The effects of excesses nitrogen during scuba dives upon a pilot or passenger in flight.

II. AREA OF OPERATION: PREFLIGHT PROCEDURES

A.TASK: PREFLIGHT INSPECTION (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to preflight inspection. This shall include which items must be inspected, the reasons for checking each item, and how to detect possible defects.

2. Inspects the aeroplane with reference to an appropriate checklist.

3. Verifies the aeroplane is in condition for safe flight.

B.TASK: COCKPIT MANAGEMENT (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to cockpit management procedures.

2. Ensures all loose items in the cockpit and cabin are secured.

3. Organizes material and equipment in an efficient manner so they are readily available.

4. Briefs occupants on the use of safety belts, shoulder harnesses, doors, and emergency procedures.

C.TASK: ENGINE STARTING (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to recommended engine starting procedures. This shall include the use of an external power source, hand propping safety, and starting under various atmospheric conditions.

2. Positions the aeroplane properly considering structures, surface conditions, other aircraft, and the safety of nearby persons and property.

3. Utilizes the appropriate checklist for starting procedure.

D.TASK: TAXIING (ASEL)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to safe taxi procedures.
2. Performs a brake check immediately after the aeroplane begins moving.
3. Positions the flight controls properly for the existing wind conditions.
4. Controls direction and speed without excessive use of brakes.
5. Complies with aerodrome/taxiway markings, signals, ATS clearances, and instructions.
6. Taxies so as to avoid other aircraft and hazards.

E.TASK: TAXIING AND SAILING (ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to water taxi and sailing procedures.
2. Positions the flight controls properly for the existing wind conditions.
3. Plans and follows the most favorable course while taxi or sailing considering wind, water current, water conditions and maritime regulations.
4. Uses the appropriate idle, plow, or step taxi technique.
5. Uses flight controls, flaps, doors, water rudder, and power correctly so as to follow the desired course while sailing.
6. Prevents and corrects for porpoising and skipping.
7. Avoids other aircraft, vessels, and hazards.
8. Complies with seaplane base signs, signals, and clearances.

F. TASK: BEFORE TAKEOFF CHECK (ASEL and SES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to the before takeoff check. This shall include the reasons for checking each item and how to detect malfunctions.
2. Positions the aeroplane properly considering other aircraft/vessels, wind and surface conditions.
3. Divides attention inside and outside the cockpit.
4. Ensures that engine temperature and pressure are suitable for run- up and takeoff.

5. Accomplishes the before takeoff checklist and ensures the aeroplane is in safe operating condition.

6. Reviews takeoff performance airspeeds, takeoff distances, departure, and emergency procedures.

7. Avoids runway incursions and/or ensures no conflict with traffic prior to taxiing into takeoff position.

III. AREA OF OPERATION: AERODROME AND SEAPLANE BASE OPERATIONS

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to radio communications and ATS light signals.

2. Selects appropriate frequencies.

3. Transmits using recommended phraseology.

4. Acknowledges radio communications and complies with instruction.

B.TASK: TRAFFIC PATTERNS (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to traffic patterns. This shall include procedures at aerodromes with and without operating control towers, prevention of runway incursions, collision avoidance, wake turbulence avoidance, and wind shear.

2. Complies with proper traffic pattern procedures.

3. Maintains proper spacing from other aircraft.

4. Corrects for wind drift to maintain the proper ground track.

5. Maintains orientation with the runway/landing area in use.

6. Maintains traffic pattern altitude, ±100 feet (30 meters), and the appropriate airspeed, ±10 knots.

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to aerodrome/seaplane base, runway, and taxiway operations with emphasis on runway incursion avoidance.

2. Properly identifies and interprets aerodrome/seaplane base, runway, and taxiway signs, markings, and lighting.

IV. AREA OF OPERATION: TAKEOFFS, LANDINGS, AND GO ABOUNDS

A. TASK: NORMAL AND CROSSWIND TAKEOFF AND CLIMB (ASEL and ASES)

NOTE: If a crosswind condition does not exist, the applicant's knowledge of crosswind elements shall be evaluated through oral testing.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to a normal and crosswind takeoff, climb operations, and rejected takeoff procedures.
2. Positions the flight controls for the existing wind conditions.
3. Clears the area; taxies into the takeoff position and aligns the aeroplane on the runway centre/takeoff path.
4. Retracts the water rudders, as appropriate, (ASES) and advances the throttle smoothly to takeoff power.
5. Establishes and maintains the most efficient plaining/lift-off attitude and corrects for porpoising and skipping (ASES).
6. Lifts off at the recommended airspeed and accelerates to Vy.
7. Establishes a pitch attitude that will maintain Vy +10/-5 knots.
8. Retracts the landing gear, if appropriate, and flaps after a positive rate of climb is established.
9. Maintains takeoff power and Vy +10/-5 knots to a safe manoeuvring altitude.
10. Maintains directional control and proper wind-drift correction throughout the takeoff and climb.
11. Complies with noise abatement procedures.
12. Completes the appropriate checklist.

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

NOTE: If a crosswind condition does not exist, the applicant's knowledge of crosswind elements shall be evaluated through oral testing.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to a normal and crosswind approach and landing.

2. Adequately surveys the intended landing area (ASES).

3. Considers the wind conditions, landing surface, obstructions, and selects a suitable touchdown point.

4. Establishes the recommended approach and landing configuration and airspeed, and adjusts pitch attitude and power as required.

5. Maintains a stabilized approach and recommended airspeed, or in its absence, not more than 1.3 Vso, +10/-5 knots, with wind gust factor applied.

6. Makes smooth, timely, and correct control application during the roundout and touchdown.

7. Contacts the water at the proper pitch attitude (ASES).

8. Touches down smoothly at approximate stalling speed (ASEL).

9. Touches down at or within 400 feet (120 meters) beyond a specified point, with no drift, and with the aeroplane's longitudinal axis aligned with and over the runway centre/landing path.

10. Maintains crosswind correction and directional control throughout the approach and landing sequence.

11. Completes the appropriate checklist.

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to a soft-field takeoff and climb.

2. Positions the flight controls for existing wind conditions and to maximize lift as quickly as possible.

3. Clears the area; taxies onto the takeoff surface at a speed consistent with safety without stopping while advancing the throttle smoothly to takeoff power.

4. Establishes and maintains a pitch attitude that will transfer the mass of the aeroplane from the wheels to the wings as rapidly as possible.

5. Lifts off at the lowest possible airspeed and remains in ground effect while accelerating to Vx or Vy, as appropriate.

6. Establishes a pitch attitude for Vx or Vy, as appropriate, and maintains selected airspeed +10/-5 knots, during the climb.

7. Retracts the landing gear, if appropriate, and flaps after clear of any obstacles or as recommended by the manufacturer.

8. Maintains takeoff power and Vx or Vy +10/-5 knots to a safe manoeuvring altitude.

9. Maintains directional control and proper wind-drift correction throughout the takeoff and climb.

10. Completes the appropriate checklist.

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to a soft-field approach and landing.

2. Considers the wind conditions, landing surface and obstructions, and selects the most suitable touchdown area.

3. Establishes the recommended approach and landing configuration, and airspeed; adjusts pitch attitude and power as required.

4. Maintains a stabilized approach and recommended airspeed, or in its absence not more than 1.3 Vso, +10/-5 knots, with wind gust factor applied.

5. Makes smooth, timely, and correct control application during the roundout and touchdown.

6. Touches down softly with no drift, and with the aeroplane's longitudinal axis aligned with the runway/landing path.

7. Maintains crosswind correction and directional control throughout the approach and landing sequence.

8. Maintains proper position of the flight controls and sufficient speed to taxi on the soft surface.

9. Completes the appropriate checklist.

E. TASK: SHORT-FIELD TAKEOFF (CONFINED AREA-ASES) AND MAXIMUM PERFORMANCE CLIMB (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to a short-field (confined area ASES) takeoff and maximum performance climb.

2. Positions the flight controls for the existing wind conditions; sets the flaps as recommended.

3. Clears the area; taxies into takeoff position utilizing maximum available takeoff area and aligns the aeroplane on the runway center/takeoff path.

4. Selects an appropriate take off path for the existing conditions (ASES).

5. Applies brakes (if appropriate), while advancing the throttle smoothly to takeoff power.

6. Establishes and maintains the most efficient plaining/lift-off attitude and corrects for porpoising and skipping (ASES).

7. Lifts off at the recommended airspeed, and accelerates to the recommended obstacle clearance airspeed or Vx.

8. Establishes a pitch attitude that will maintain the recommended obstacle clearance airspeed, or Vx, +10/-5 knots, until the obstacle is cleared, or until the aeroplane is 50 feet (20 meters) above the surface.

9. After clearing the obstacle, establishes the pitch attitude for Vy, accelerates to Vy, and maintains Vy, +10/-5 knots, during the climb.

10. Retracts the landing gear, if appropriate, and flaps after clear of any obstacles or as recommended by manufacturer.

11. Maintains takeoff power and Vy +10/-5 to a safe manoeuvring altitude.

12. Maintains directional control and proper wind-drift correction throughout the takeoff and climb.

13. Completes the appropriate checklist.

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to a short-field (confined area ASES) approach and landing.

2. Adequately surveys the intended landing area (ASES).

3. Considers the wind conditions, landing surface, obstructions, and selects the most suitable touchdown point.

4. Establishes the recommended approach and landing configuration and airspeed; adjusts pitch attitude and power as required.

5. Maintains a stabilized approach and recommended approach airspeed, or in its absence not more than 1.3 Vso, +10/-5 knots, with wind gust factor applied.

6. Makes smooth, timely, and correct control application during the roundout and touchdown.

7. Selects the proper landing path, contacts the water at the minimum safe airspeed with the proper pitch attitude for the surface conditions (ASES).

8. Touches down smoothly at minimum control airspeed (ASEL).

9. Touches down at or within 200 feet (60 meters) beyond a specified point, with no side drift, minimum float and with the aeroplane's longitudinal axis aligned with and over the runway centre/landing path.

10. Maintains crosswind correction and directional control throughout the approach and landing sequence.

11. Applies brakes, (ASEL) or elevator control (ASES), as necessary, to stop in the shortest distance consistent with safety.

12. Completes the appropriate checklist.

G. TASK: GLASSY WATER TAKEOFF AND CLIMB (ASES)

NOTE: If a glassy water condition does not exist, the applicant shall be evaluated by simulating the TASK.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to glassy water takeoff and climb.

2. Positions the flight controls and flaps for the existing conditions.

3. Clears the area; selects an appropriate takeoff path considering surface hazards and/or vessels and surface conditions.

4. Retracts the water rudders as appropriate; advances the throttle smoothly to takeoff power.

5. Establishes and maintains an appropriate plaining attitude, directional control, and corrects for porpoising, skipping, and increases in water drag.

6. Utilizes appropriate techniques to lift seaplane from the water considering surface conditions.

7. Establishes proper attitude/airspeed, and accelerates to Vy, +10/-5 knots during the climb.

8. Retracts the landing gear, if appropriate, and flaps after a positive rate of climb is established.

9. Maintains takeoff power Vy +10/-5 to a safe maneuvering altitude.

10. Maintains directional control and proper wind-drift correction throughout takeoff and climb.

11. Completes the appropriate checklist.

H.TASK: GLASSY WATER APPROACH AND LANDING (ASES)

NOTE: If a glassy water condition does not exist, the applicant shall be evaluated by simulating the TASK.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to glassy water approach and landing.

2. Adequately surveys the intended landing area.

3. Considers the wind conditions, water depth, hazards, surrounding terrain, and other watercraft.

4. Selects the most suitable approach path, and touchdown area.

5. Establishes the recommended approach and landing configuration and airspeed, and adjusts pitch attitude and power as required.

6. Maintains a stabilized approach and the recommended approach airspeed, +10/-5 knots and maintains a touchdown pitch attitude and descent rate from the last altitude reference until touchdown.

7. Makes smooth, timely, and correct power and control adjustments to maintain proper pitch attitude and rate of descent to touchdown.

8. Contacts the water in the proper pitch attitude, and slows to idle taxi speed.

9. Maintains crosswind correction and directional control throughout the approach and landing sequence.

10. Completes the appropriate checklist.

I. TASK: ROUGH WATER TAKEOFF AND CLIMB (ASES)

NOTE: If a rough water condition does not exist, the applicant shall be evaluated by simulating the TASK.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to rough water takeoff and climb.

2. Positions the flight controls and flaps for the existing conditions.

3. Clears the area; selects an appropriate takeoff path considering wind, swells surface hazards and/or vessels.

4. Retracts the water rudders as appropriate; advances the throttle smoothly to takeoff power.

5. Establishes and maintains an appropriate plaining attitude, directional control, and corrects for porpoising, skipping, or excessive bouncing.

6. Lifts off at minimum airspeed and accelerates to Vy, +10/-5 knots before leaving ground effect.

7. Retracts the landing gear, if appropriate, and flaps after a positive rate of climb is established.

8. Maintains takeoff power Vy +10/-5 to a safe maneuvering altitude.

9. Maintains directional control and proper wind-drift correction throughout takeoff and climb.

10. Completes the appropriate checklist.

TASK: ROUGH WATER APPROACH AND LANDING (ASES)

NOTE: If a rough water condition does not exist, the applicant shall be evaluated by simulating the TASK.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to rough water approach and landing.
2. Adequately surveys the intended landing area.
3. Considers the wind conditions, water, depth, hazards, surrounding terrain, and other watercraft.
4. Selects the most suitable approach path, and touchdown area.
5. Establishes the recommended approach and landing configuration and airspeed, and adjusts pitch attitude and power as required.
6. Maintains a stabilized approach and the recommended approach airspeed, or in its absence not more than 1.3 Vso +10/-5 knots with wind gust factor applied.
7. Makes smooth, timely, and correct power and control application during the roundout and touch down.
8. Contacts the water in the proper pitch attitude, and at the proper airspeed, considering the type of rough water.
9. Maintains crosswind correction and directional control throughout the approach and landing sequence.
10. Completes the appropriate checklist.

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to forward slip to a landing.
2. Considers the wind conditions, landing surface and obstructions, and selects the most suitable touchdown point.
3. Establishes the slipping attitude at the point from which a landing can be made using the recommended approach and landing configuration and airspeed; adjusts pitch attitude and power as required.
4. Maintains a ground track aligned with the runway center/landing path and an airspeed, which results in minimum float during the roundout.
5. Makes smooth, timely, and correct control application during the recovery from the slip, the roundout, and the touchdown.

6. Touches down smoothly at the approximate stalling speed, at or within 400 feet (120 meters) beyond a specified point, with no side drift, and with the aeroplane's longitudinal axis aligned with and over the runway center/landing path.

7. Maintains crosswind correction and directional control throughout the approach and landing sequence.

8. Completes the appropriate checklist.

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to a go-around/rejected landing.

2. Makes a timely decision to discontinue the approach to landing.

3. Applies takeoff power immediately and transitions to climb pitch attitude for Vy, and maintains Vy +10/-5 knots.

4. Retracts the flaps as appropriate.

5. Retracts the landing gear, if appropriate, after a positive rate of climb is established.

6. Manoeuvres to the side of the runway/landing area to clear and avoid conflicting traffic.

7. Maintains takeoff power Vy +10/-5 to a safe maneuvering altitude.

8. Maintains directional control and proper wind-drift correction throughout the Climb.

9. Completes the appropriate checklist.

V. AREA OF OPERATION: PERFORMANCE MANOEUVRE

A. TASK: STEEP TURNS (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to steep turns.

2. Establishes the manufacturer's recommended airspeed or if one is not stated, a safe airspeed not to exceed Va.

3. Rolls into a coordinated 360° turn; maintains a 45° bank.

4. Performs the task in the opposite direction, as specified by the examiner.

5. Divides attention between aeroplane control and orientation.

6. Maintains the entry altitude, ±100 feet (30 meters), airspeed, ±10 knots, bank, ±5°; and rolls out on the entry heading, ±10°.

VI. AREA OF OPERATION: GROUND REFERENCE MANOEUVRES

NOTE: The examiner shall select at least one TASK.

A. TASK: RECTANGULAR COURSE (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to a rectangular course.
2. Selects a suitable reference area.
3. Plans the maneuver so as to enter a left or right pattern, 600 to 1,000 feet AGL (180 to 300 meters) at an appropriate distance from the selected reference area, 45° to the downwind leg.
4. Applies adequate wind-drift correction during straight-and-turning flight to maintain a constant ground track around the rectangular reference area.
5. Divides attention between aeroplane control and the ground track while maintaining coordinated flight.
6. Maintains altitude, ±100 feet (30 meters); maintains airspeed, ±10 knots.

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to S-turns.
2. Selects a suitable ground reference line.
3. Plans the manoeuvre so as to enter at 600 to 1,000 feet (180 to 300 meters) AGL, perpendicular to the selected reference line.
4. Applies adequate wind-drift correction to track a constant radius turn on each side of the selected reference line.
5. Reverses the direction of turn directly over the selected reference line.
6. Divides attention between aeroplane control and the ground track while maintaining coordinated flight.
7. Maintains altitude, ±100 feet (30 meters); maintains airspeed, ±10 knots.

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to turns around a point.

2. Selects a suitable ground reference point.

3. Plans the maneuver so as to enter left or right at 600 to 1,000 feet (180 to 300 meters) AGL, at an appropriate distance from the reference point.

4. Applies adequate wind-drift correction to track a constant radius turn around the selected reference point.

5. Divides attention between aeroplane control and the ground track while maintaining coordinated flight.

6. Maintains altitude, ±100 feet (30 meters); maintains airspeed, ±10 knots.

VII. AREA OF OPERATION: NAVIGATION

A. TASK: PILOTAGE AND DEAD RECKONING (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to pilotage and dead reckoning.

2. Follows the preplanned course by reference to landmarks.

3. Identifies landmarks by relating surface features to chart symbols.

4. Navigates by means of pre-computed headings, groundspeeds, and elapsed time.

5. Corrects for and records the differences between preflight groundspeed and heading calculations and those determined en route.

6. Verifies the aeroplane's position within three (3) nautical miles of the flight-planned route.

7. Arrives at the en route checkpoints within five (5) minutes of the initial or revised ETA and provides a destination estimate.

8. Maintains the appropriate altitude, ±200 feet (60 meters) and headings, ±15°.

B.TASK: NAVIGATION SYSTEMS AND RADAR SERVICES (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to navigation systems and radar services.

2. Demonstrates the ability to use an airborne electronic navigation system.

3. Locates the aeroplane's position using the navigation system.

4. Intercepts and tracks a given course, radial or bearing, as appropriate.

5. Recognizes and describes the indication of station passage, if appropriate.

6. Recognizes signal loss and takes appropriate action.

7. Uses proper communication procedures when utilizing radar services.

8. Maintains the appropriate altitude, ±200 feet (60 meters) and headings ±15°.

C. TASK: DIVERSION (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to diversion.

2. Selects an appropriate alternate aerodrome and route.

3. Makes an accurate estimate of heading, groundspeed, arrival time, and fuel consumption to the alternate aerodrome.

4. Maintains the appropriate altitude, ±200 feet (60 meters) and heading, ±15°.

D. TASK: LOST PROCEDURES (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to lost procedures.

2. Selects an appropriate course of action.

3. Maintains an appropriate heading and climbs, if necessary.

4. Identifies prominent landmarks.

5. Uses navigation systems/facilities and/or contacts an ATS facility for assistance, as appropriate.

VIII. AREA OF OPERATION: SLOW FLIGHT AND STALLS

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to maneuvering during slow flight.

2. Selects an entry altitude that will allow the task to be completed no lower than 1,500 feet (460 meters) AGL.

3. Establishes and maintains an airspeed at which any further increase in angle of attack, increase in load factor, or reduction in power, would result in an immediate stall.

4. Accomplishes coordinated straight-and-level flight, turns, climbs, and descents with landing gear and flap configurations specified by the examiner.

5. Divides attention between aeroplane control and orientation.

6. Maintains the specified altitude, ±100 feet (30 meters)specifiedheadin±10°airspeed, +10/-0 knots; and specified angle of bank, ±10°.

B. TASK: POWER-OFF STALL (ASEL and ASES)

Objective: to determine that the applicant:

1. Exhibits knowledge of the elements related to power-off stalls.

2. Selects an entry altitude that allows the task to be completed no lower than 1,500 feet (460 meters) AGL.

3. Establishes a stabilized descent in the approach or landing configuration, as specified by the examiner.

4. Transitions smoothly from the approach or landing attitude to a pitch attitude that will induce a stall.

5. Maintains a specified heading, ±10°, in straight flight; maintains a specified angle of bank not to exceed 20°, ±10°; in turning flight, while inducing the stall.

6. Recognizes and recovers promptly after the stall occurs by simultaneously reducing the angle of attack, increasing power to maximum allowable, and levelling the wings to return to a straight- and-level flight attitude with a minimum loss of altitude appropriate for the aeroplane.

7. Retracts the flaps to the recommended setting; retracts the landing gear, if retractable, after a positive rate of climb is established.

8. Accelerates to Vx or Vy speed before the final flap retraction; returns to the altitude, heading, and airspeed specified by the examiner.

C. TASK: POWER-ON STALL (ASEL and ASES)

NOTE: In some high performance aeroplanes, the power setting may have to be reduced below the skill test standards guideline power setting to prevent excessively high pitch altitudes (greater than 30° nose up).

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to power-on stalls.

2. Selects an entry altitude that allows the task to be completed no lower than 1,500 feet (460 meters) AGL.

3. Establishes the takeoff or departure configuration. Sets power to no less than 65 percent available power.

4. Transitions smoothly from the takeoff or departure attitude to the pitch attitude that will induce a stall.

5. Maintains a specified heading, ±10°, in straight flight; maintains a specified angle of bank not to exceed 20°, ±10°, in turning flight, while inducing the stall.

6. Recognizes and recovers promptly after the stall occurs by simultaneously reducing the angle of attack, increasing power as appropriate, and leveling the wings to return to a straight-and-level flight attitude with a minimum loss of altitude appropriate for the aeroplane.

7. Retracts the flaps to the recommended setting; retracts the landing gear if retractable, after a positive rate of climb is established.

8. Accelerates to Vx or Vy speed before the final flap retraction; returns to the altitude, heading, and airspeed specified by the examiner.

D. TASK: SPIN AWARENESS (ASEL and ASES)

Objective: To determine that the applicant exhibits knowledge of the elements related to spin awareness by explaining:

1. Aerodynamic factors related to spins.

2. Flight situations where unintentional spins may occur.

3. Procedures for recovery from unintentional spins.

IX. AREA OF OPERATION: BASIC INSTRUMENT MANOEUVRES

NOTE: The examiner shall select task E and at least two other TASKs.

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to attitude instrument flying during straight- and-level flight.

2. Maintains straight-and-level flight solely by reference to instruments using proper instrument cross-check and interpretation, and coordinated control application.

3. Maintains altitude, ±200 feet (60 meters); heading, ±20°; and airspeed, ±10 knots.

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to attitude instrument flying during constant airspeed climbs.

2. Establishes the climb configuration specified by the examiner.

3. Transitions to the climb pitch attitude and power setting on an assigned heading using proper instrument cross-check and interpretation, and coordinated control application.

4. Demonstrates climbs solely by reference to instruments at a constant airspeed to specific altitudes in straight flight and turns.

5. Levels off at the assigned altitude and maintains that altitude, ±200 feet (60 meters); maintains heading, ±20°; maintains airspeed, ±10 knots.

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to attitude instrument flying during constant airspeed descents.

2. Establishes the descent configuration specified by the examiner.

3. Transitions to the descent pitch attitude and power setting on an assigned heading using proper instrument cross-check and interpretation, and coordinated control application.

4. Demonstrates descents solely by reference to instruments at a constant airspeed to specific altitudes in straight flight and turns.

5. Levels off at the assigned altitude and maintains that altitude, ±200 feet (60 meters); maintains heading, ±20°; maintains airspeed, ±10 **knots.**

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to attitude instrument flying during turns to headings.

2. Transitions to the level-turn attitude using proper instrument cross- check and interpretation, and coordinated control application.

3. Demonstrates turns to headings solely by reference to instruments; maintains altitude, ±200 feet (60 meters); maintains a standard rate turn and rolls out on the assigned heading, ± 10°; maintains airspeed, ±10 knots.

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to attitude instrument flying during unusual altitudes.

2. Recognizes unusual flight altitudes solely by reference to instruments; recovers promptly to a stabilized level flight attitude using proper instrument cross-check and interpretation and smooth, coordinated control application in the correct sequence.

F. TASK: RADIO COMMUNICATIONS, NAVIGATION SYSTEMS/FACILITIES, AND RADAR SERVICES (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to radio communications, navigation systems/facilities, and radar services available for use during flight solely by reference to instruments.

2. Selects the proper frequency and identifies the appropriate facility.

3. Follows verbal instructions and/or navigation systems/facilities for guidance.

4. Determines the minimum safe altitude.

5. Maintains altitude, ±200 feet (60 meters); maintains heading, ±20°; maintains airspeed, ±10 knots.

X. AREA OF OPERATION: EMERGENCY OPERATIONS

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to emergency approach and landing procedures.

2. Analyzes the situation and selects an appropriate course of action.

3. Establishes and maintains the recommended best-glide airspeed, ±10 knots.

4. Selects a suitable landing area.

5. Plans and follows a flight pattern to the selected landing area considering altitude, wind, terrain, and obstructions.

6. Prepares for landing, or go-around, as specified by the examiner.

7. Follows the appropriate checklist.

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to system and equipment malfunctions appropriate to the aeroplane provided for the skill test.

2. Analyzes the situation and takes appropriate action for simulated emergencies appropriate to the aeroplane provided for the skill test for at least three (3) of the following-

   i. MCAR Partial or complete power loss.

   ii. Engine roughness or overheat.

   iii. Carburettor or induction icing.

   iv. Loss of oil pressure.

   v. Fuel starvation.

   vi. Electrical malfunction.

   vii. Vacuum/pressure, and associated flight instruments malfunction.

   viii. Pitot/static. Landing gear or flap malfunction.

   ix. Inoperative trim.

   x. Inadvertent door or window opening. Structural icing.

   xi. Smoke/fire/engine compartment fire.

   xii. Any other emergency appropriate to the aeroplane.

3. Follows the appropriate checklist or procedure.

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to emergency equipment and survival gear appropriate to the aeroplane and environment encountered during flight. Identifies appropriate equipment that should be aboard the aeroplane.

XI. AREA OF OPERATION: NIGHT OPERATION

A.TASK: NIGHT PREPARATION (ASEL and ASES)

Objective: To determine that the applicant exhibits knowledge of the elements related to night operations by explaining:

1. Physiological aspects of night flying as it relates to vision.

2. Lighting systems identifying aerodromes, runways, taxiways and obstructions, and pilot controlled lighting.

3. Aeroplane lighting systems.

4. Personal equipment essential for night flight.

5. Night orientation, navigation, and chart reading techniques.

6. Safety precautions and emergencies unique to night flying.

XII. AREA OF OPERATION: POSTFLIGHT PROCEDURES

NOTE: The examiner shall select TASK A and for ASES applicants at least one other TASK.

A. TASK: AFTER LANDING, PARKING, AND SECURING (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to after landing, parking and securing procedures.

2. Maintains directional control after touchdown while decelerating to an appropriate speed.

3. Observes runway hold lines and other surface control markings and lighting.

4. Parks in an appropriate area, considering the safety of nearby persons and property.

5. Follows the appropriate procedure for engine shutdown.

6. Completes the appropriate checklist.

7. Conducts an appropriate postflight inspection and secures the aircraft.

B. TASK: ANCHORING (ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to anchoring.

2. Selects a suitable area for anchoring, considering seaplane movement, water depth, tide, wind, and weather changes.

3. Uses an adequate number of anchors and lines of sufficient strength and length to ensure the seaplane's security.

C. TASK: DOCKING AND MOORING (ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to docking and mooring.

2. Approaches the dock or mooring buoy in the proper direction considering speed, hazards, wind, and water current.

3. Ensures seaplane security.

D. TASK: RAMPING/BEACHING (ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to ramping/beaching.

2. Approaches the ramp/beach considering persons and property, in the proper attitude and direction, at a safe speed, considering water depth, tide, current and wind.

3. Ramps/beaches and secures the seaplane in a manner that will protect it from the harmful effect of wind, waves, and changes in water level.

CHAPTER 2: PRIVATE PILOT LICENCE (PPL) AEROPLANE

MULTIENGINE LAND AND SEA

Additional Rating Tables

a). Aeroplane Multiengine Land

Addition of an aeroplane Multiengine Land Rating to an existing Private Pilot Licence								
Required **TASKs** are indicated by either the **TASK** letter (s) that apply (s) or an indication that all of the **TASKs** must be based on the notes in each **AREA OF OPERATION**								
PRIVATE PILOT RATING(S) HELD								
AREAS OF OPERATION	**ASEL**	**ASES**	**AMES**	**RH**	**RG**	**Glider**	**Balloon**	**Airship**
I	F,G,H	F,G,H	F,G	F,G,H	F.G.H	F.G.H	F,G,H	F,G,H
II	ALL	ALL	D	ALL	ALL	ALL	ALL	ALL
III	NONE	C	C	B.C	NONE	B.C	B.C	B.C
IV	A.B.C. D.	A.B.C.D.	A.B.C.D.	A.B.C.D, K.	A.B.C.D, K.	A.B.C.D,K.	A.B.C.D,K.	A.B.C.D, K.
V	ALL	ALL	NONE	ALL	ALL	ALL	ALL	ALL
VI	NONE	NONE	NONE	ALL	NONE	ALL	ALL	ALL
VII	NONE	NONE	NONE	NONE	NONE	ALL	ALL	NONE
VIII	ALL	ALL	NONE	ALL	ALL	ALL	ALL	ALL
IX	NONE	NONE	NONE	ALL	ALL	ALL	ALL	ALL
X	ALL	ALL	B.D.E.	ALL	ALL	ALL	ALL	ALL
XI	ALL	ALL	NONE	ALL	ALL	ALL	ALL	ALL
XII	NONE	NONE	NONE	NONE	NONE	ALL	ALL	ALL
XII	NONE	A	A	A	A	A	A	A

b). Aeroplane Multiengine Sea

Addition of an aeroplane Multiengine Land Rating to an existing Private Pilot Licence								
Required **TASKs** are indicated by either the **TASK** letter (s) that apply (s) or an indication that all of the **TASKs** must be based on the notes in each **AREA OF OPERATION**								
PRIVATE PILOT RATING(S) HELD								
AREAS OF OPERATION	**ASEL**	**ASES**	**AMES**	**RH**	**RG**	**Glider**	**Balloon**	**Airship**
I	F,G,I,J	F,G,H,I, J	F,G,H	F,G,H,I,J	F,G,H,I,J	F,G,H,I,J	F,G,H,I,J	F,G,H,I,J
II	E	ALL	ALL	ALL	ALL	ALL	ALL	ALL
III	C	C	NONE	B,C	C	B,C	B,C	B,C
IV	A,B,C,D, E,F,G,H	A,B,C,D, E,F,G,H	A,B,C,D, E,F,G,H	ALL	ALL	ALL	ALL	ALL
V	NONE	ALL	ALL	ALL	ALL	ALL	ALL	ALL
VI	NONE	NONE	NONE	ALL	ALL	ALL	ALL	ALL
VII	NONE	NONE	NONE	NONE	NONE	ALL	ALL	NONE
VIII	NONE	ALL	ALL	ALL	ALL	ALL	ALL	ALL
IX	NONE	NONE	NONE	ALL	ALL	ALL	ALL	ALL
X	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL
XI	NONE	ALL	ALL	ALL	ALL	ALL	ALL	ALL
XII	NONE	NONE	NONE	NONE	NONE	ALL	ALL	ALL
XIII	B,C,D	B,C,D	NONE	ALL	B,C,D	ALL	ALL	ALL

I. AREA OF OPERATION: PREFLIGHT PREPARATION

A. TASK: LICENCES AND DOCUMENTS (AMEL and AMES)

NOTE: The examiner shall develop a scenario based on real time weather to evaluate TASKs C and D.

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

1. Explaining-

    a. Private pilot licence privileges, limitations and recent flight experience requirements.

    b. Medical licence, class and duration.

    c. Pilot logbook or flight records

2. Locating and explaining –

    a. Airworthiness and registration licences.

    b. Operating limitations, placards, instrument markings, and POH/AFM.

    c. Mass and balance data and equipment list.

B. TASK: AIRWORTHINESS REQUIREMENTS (AMEL and AMES)

Objective: To determine that the applicant exhibits knowledge of the elements related to airworthiness requirements by:

1. Explaining-

    i. Required instruments and equipment for day/night VFR.

    ii. Procedures and limitations for determining airworthiness of the aeroplane with inoperative instruments and equipment with and without an MEL.

    iii. Requirements and procedures for obtaining a special flight permit.

2. Locating and explaining-

    a. Airworthiness directives.

    b. Compliance records.

    c. Maintenance/inspection requirements.

d. Appropriate record keeping.

C. TASK: WEATHER INFORMATION (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to weather information by analyzing weather reports, charts, and forecasts from various sources with emphasis on –

   a. METAR, TAF, and FA.

   b. Surface analysis chart.

   c. Radar summary chart.

   d. Winds and temperature aloft chart. Significant weather prognostic charts. Convective outlook chart.

   e. Automated weather reports.

2. Makes a competent "go/no-go" decision based on available weather information.

D. TASK: CROSS-COUNTRY FLIGHT PLANNING (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to cross-country flight planning by presenting and explaining a pre-planned VFR cross- country flight, as previously assigned by the examiner. On the day of the skill test, the final flight plan shall be to the first fuel stop, based on maximum allowable passengers, baggage and/or cargo loads using real-time weather.

2. Uses appropriate and current aeronautical charts.

3. Properly identifies airspace, obstructions, and terrain features.

4. Selects easily identifiable en route checkpoints.

5. Selects most favorable altitudes considering weather conditions and equipment capabilities.

6. Computes headings, flight time, and fuel requirements.

7. Selects appropriate navigation system/facilities and communication frequencies.

8. Applies pertinent information from NOTAMs and other flight publications.

9. Completes a navigation log and simulates filing a VFR flight plan.

E. TASK: NATIONAL AIRSPACE SYSTEM (AMEL and AMES)

Objective:To determine that the applicant exhibits knowledge of the elements related to the National Airspace System by explaining:

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 and other airspace areas.

F. TASK: PERFORMANCE AND LIMITATIONS (AMEL and MES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to performance and limitations by explaining the use of charts, tables, and data to determine performance and the adverse effects of exceeding limitations.
2. Computes mass and balance. Determines the computed mass and centre of gravity is within the aeroplane's operating limitations and if the mass and centre of gravity will remain within limits during all phases of flight.
3. Demonstrates use of the appropriate performance charts, tables, and data.
4. Describes the effects of atmospheric conditions on the aeroplane's performance.

G. TASK: OPERATION OF SYSTEMS (AMEL and AMES)

Objective: To determine that the applicant exhibits knowledge of the elements related to the operation of systems on the aeroplane provided for the flight test by explaining at least three (3) of the following systems:

1. Primary Flight Controls and Trim.
2. Flaps, Leading Edge Devices, and Spoilers.

3. Water Rudders (AMES).
4. Powerplant and Propeller.
5. Landing Gear.
6. Fuel, Oil, and Hydraulic.
7. Electrical.
8. Avionics.
9. Pitot-Static Vacuum/Pressure, and Associated Flight Instruments.
10. Environmental.
11. De-icing and Anti-Icing.

H. TASK: PRINCIPLES OF FLIGHT-ENGINE INOPERATIVE (AMEL and AMES)

Objective: To determine that the applicant exhibits knowledge of the elements related to engine inoperative principles of flight by explaining the:

1. Meaning of the term "critical engine."
2. Effects of density altitude on the Vmc demonstration.
3. Effects of aeroplane mass and centre of gravity on control.
4. Effects of angle of bank 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 procedure.
10. Engine failure during takeoff including planning, decisions, and single-engine operations.

I. TASK: WATER AND SEAPLANE CHARACTERISTICS (AMES)

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

1. The characteristics of a water surface as affected by features, such as-Size and location.

2. Protected and unprotected areas.

3. Surface wind.

4. Direction and strength of water current.

5. Floating and MCAR Partially submerged debris. Sandbars, islands, and shoals.

6. Vessel traffic and wakes.

7. Other features peculiar to the area.

8. Float and hull construction, and their effect on seaplane performance.

9. Causes of porpoising and skipping, and the pilot action required to prevent or correct these occurrences.

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

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

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

2. Operating restrictions at various bases.

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

4. Marine navigation aids such as buoys, beacons, lights, and sound signals.

K. TASK: AEROMEDICAL FACTORS (AMEL and AMES)

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

1. The symptoms, causes, effects, and corrective actions of at least three (3) of the following-

    a. Hypoxia.

    b. Hyperventilation.

    c. Middle Ear And Sinus Problems.

    d. Spatial Disorientation.

e. Motion Sickness.

f. Carbon Monoxide Poisoning.

g. Stress And Fatigue.

h. Dehydration.

2. The effects of alcohol, drugs, and over-the-counter medications.

3. The effects of excess nitrogen during scuba dives upon a pilot or passenger in flight.

B. TASK: COCKPIT MANAGEMENT (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to cockpit management procedures.

2. Ensures all loose items in the cockpit and cabin are secured.

3. Organizes material and equipment in an efficient manner so they are readily available.

4. Briefs occupants on the use of safety belts, shoulder harnesses, doors, and emergency procedures.

C. TASK: ENGINE STARTING (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to recommended engine starting procedures. This shall include the use of an external power source, and starting under various atmospheric conditions.

2. Positions the aeroplane properly considering structures, surface conditions, other aircraft, and the safety of nearby persons and property.

3. Utilizes the appropriate checklist for starting procedure.

D. TASK: TAXIING (AMEL)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to safe taxi procedures.

2. Performs a brake check immediately after the aeroplane begins moving.

3. Positions the flight controls properly for the existing wind conditions.

4. Controls direction and speed without excessive use of brakes.

5. Complies with aerodrome/taxiway markings, signals, ATS clearances, and instructions.

6. Taxies so as to avoid other aircraft and hazards.

E. TASK: TAXIING AND SAILING (AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to water taxi and sailing procedures.

2. Positions the flight controls properly for the existing wind conditions.

3. Plans and follows the most favourable course while taxi or sailing considering wind, water current, water conditions and maritime regulations.

4. Uses the appropriate idle, plow, or step taxi technique.

5. Uses flight controls, flaps, doors, water rudder, and power correctly so as to follow the desired course while sailing.

6. Prevents and corrects for porpoising and skipping.

7. Avoids other aircraft, vessels, and hazards.

8. Complies with seaplane base signs, signals, and clearances.

F. TASK: BEFORE TAKEOFF CHECK (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to the before takeoff check. This shall include the reasons for checking each item and how to detect malfunctions.

2. Positions the aeroplane properly considering other aircraft/vessel, wind and surface conditions.

3. Divides attention inside and outside the cockpit.

4. Ensures that engine temperatures and pressure are suitable for run-up and takeoff.

5. Accomplishes the before takeoff checklist and ensures the aeroplane is in safe operating condition.

6. Reviews takeoff performance airspeeds, takeoff distances, departures, and emergency procedures.

7. Avoids runway incursion and/or ensures no conflict with traffic prior to taxiing into takeoff position.

III AREA OF OPERATION: AERODROME AND SEAPLANE BASE OPERATIONS

A. TASK: RADIO COMMUNICATIONS AND ATS LIGHT SIGNALS (AMEL and MES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to radio communications and ATS light signals.
2. Selects appropriate frequencies.
3. Transmits using recommended phraseology.
4. Acknowledges radio communications and complies with instructions.

B. TASK: TRAFFIC PATTERNS (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to traffic patterns. This shall include procedures at aerodromes with and without operating control towers, prevention of runway incursions, collision avoidance, wake turbulence avoidance, and wind shear.
2. Complies with proper traffic pattern procedures.
3. Maintains proper spacing from other aircraft.
4. Corrects for wind drift to maintain the proper ground track.
5. Maintains orientation with the runway/landing area in use.
6. Maintains traffic pattern altitude, ±100 feet (30 meters), and the appropriate airspeed, ±10 knots.

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to aerodrome/seaplane base, runway, and taxiway operations with emphasis on runway incursion avoidance.
2. Properly identifies and interprets aerodrome/seaplane base, runway, and taxiway signs, markings, and lighting.

IV. AREA OF OPERATION: TAKEOFFS, LANDINGS, AND GO AROUNDS

A. TASK: NORMAL AND CROSSWIND TAKEOFF AND CLIMB (AMEL and AMES)

NOTE: If a crosswind condition does not exist, the applicant's knowledge of crosswind elements shall be evaluated through oral testing.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to a normal and crosswind takeoff, climb operations, and rejected takeoff procedures.
2. Positions the flight controls for the existing wind conditions.
3. Clears the area; taxies into the takeoff position and aligns the aeroplane on the runway centre/takeoff path.
4. Retracts the water rudders as appropriate, (AMES) advances the throttles smoothly to takeoff power.
5. Establishes and maintains the most efficient plaining/lift-off attitude and corrects for porpoising and skipping (AMES).
6. Lifts off at the recommended airspeed and accelerates to Vy.
7. Establishes a pitch attitude that will maintain VY +10/-5 knots.
8. Retracts the landing gear, if appropriate, and flaps after a positive rate of climb is established.
9. Maintains takeoff power and Vy +10/-5 knots to a safe manoeuvring altitude.
10. Maintains directional control and proper wind-drift correction throughout the takeoff and climb.
11. Complies with noise abatement procedures.
12. Completes the appropriate checklist.

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

NOTE: If a crosswind condition does not exist, the applicant's knowledge of crosswind elements shall be evaluated through oral testing.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to a normal and crosswind approach and landing.
2. Adequately surveys the intended landing area (AMES).

3. Considers the wind conditions, landing surface, obstructions, and selects a suitable touchdown point.

4. Establishes the recommended approach and landing configuration and airspeed, and adjusts pitch attitude and power as required.

5. Maintains a stabilized approach and recommended airspeed, or in its absence, not more than 1.3 Vso, +10/-5 knots, with wind gust factor applied.

6. Makes smooth, timely, and correct control application during the roundout and touchdown.

7. Contacts the water at the proper pitch attitude (AMES).

8. Touches down smoothly at approximate stalling speed (AMEL).

9. Touches down at or within 400 feet (120 meters) beyond a specified point, with no drift, and with the aeroplane's longitudinal axis aligned with and over the runway centre/landing path.

10. Maintains crosswind correction and directional control throughout the approach and landing sequence.

11. Completes the appropriate checklist.

C. TASK: SHORT-FIELD (CONFINED AREA-AMES) TAKEOFF AND MAXIMUM PERFORMANCE CLIMB (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to a short-field (confined area AMES) takeoff and maximum performance climb.

2. Positions the flight controls for the existing wind conditions; sets the flaps as recommended.

3. Clears the area; taxies into takeoff position utilizing maximum available takeoff area and aligns the aeroplane on the runway center/take-off path.

4. Selects an appropriate take-off path for the existing conditions (AMES).

5. Applies brakes (if appropriate), while advancing the throttles smoothly to takeoff power.

6. Establishes and maintains the most efficient plaining/lift-off attitude and corrects for porpoising and skipping (AMES).

7. Lifts off at the recommended airspeed, and accelerates to the recommended obstacle clearance airspeed or Vx.

8. Establishes a pitch attitude that will maintain the recommended obstacle clearance airspeed, or Vx, +10/-5 knots, until the obstacle is cleared, or until the aeroplane is 50 feet (20 meters) above the surface.

9. After clearing the obstacle, establishes the pitch attitude for VY accelerates to Vy, and maintains Vy, +10/-5 knots, during the climb.

10. Retracts the landing gear, if appropriate, and flaps after clear of any obstacles or as recommended by manufacturer.

11. Maintains takeoff power and Vy +10/-5 knots to a safe manoeuvring altitude.

12. Maintains directional control and proper wind-drift correction throughout the takeoff and climb.

13. Completes the appropriate checklist.

D. TASK: SHORT-FIELD APPROACH (CONFINED AREA-AMES) AND LANDING (AMEL AND AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to a short-field (confined area AMES) approach and landing.

2. Adequately surveys the intended landing area (AMES).

3. Considers the wind conditions, landing surface, obstructions, and selects the most suitable touchdown point.

4. Establishes the recommended approach and landing configuration and airspeed; adjusts pitch attitude and power as required.

5. Maintains a stabilized approach and recommended approach airspeed, or in its absence not more than 1.3 Vso, +10/-5 knots, with wind gust factor applied.

6. Makes smooth, timely, and correct control application during the roundout and touchdown.

7. Selects the proper landing path, contacts the water at the minimum safe airspeed with the proper pitch attitude for the surface conditions (AMES).

8. Touches down smoothly at minimum control airspeed (AMEL).

9. Touches down at or within 200 feet (60 meters) beyond a specified point, with no side drift, minimum float, and with the aeroplane's longitudinal axis aligned with and over the runway centre/landing path.

10. Maintains crosswind correction and directional control throughout the approach and landing sequence.

11. Applies brakes, (AMEL) or elevator control (AMES), as necessary, to stop in the shortest distance consistent with safety.

12. Completes the appropriate checklist.

E. TASK: GLASSY WATER TAKEOFF AND CLIMB (AMES)

NOTE: If a glassy water condition does not exist, the applicant shall be evaluated by simulating the TASK.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to glassy water takeoff and climb. Positions the flight controls and flaps for the existing conditions.

2. Clears the area; selects an appropriate takeoff path considering surface hazards and/or vessels and surface conditions.

3. Retracts the water rudders as appropriate; advances the throttle smoothly to takeoff power.

4. Establishes and maintains an appropriate plaining attitude, directional control, and corrects for porpoising, skipping, and increases in water drag.

5. Utilizes appropriate techniques to lift seaplane from the water considering surface conditions.

6. Establishes proper attitude/airspeed, and accelerates to Vy, +10/- 5 knots during the climb.

7. Retracts the landing gear, if appropriate, and flaps after a positive rate of climb is established.

8. Maintains takeoff power and Vy +10/-5 knots to a safe maneuvering altitude.

9. Maintains directional control and proper wind-drift correction throughout takeoff and climb.

10. Completes the appropriate checklist.

F. TASK: GLASSY WATER APPROACH AND LANDING (AMES)

NOTE: If a glassy water condition does not exist, the applicant shall be evaluated by simulating the TASK.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to glassy water approach and landing.

2. Adequately surveys the intended landing area.

3. Considers the wind conditions, water depth, hazards, surrounding terrain, and other watercraft.

4. Selects the most suitable approach path and touchdown area.

5. Establishes the recommended approach and landing configuration and airspeed, and adjusts pitch attitude and power as required.

6. Maintains a stabilized approach and the recommended approach airspeed, +10/-5 knots and maintains a touchdown pitch attitude and descent rate from the last altitude reference until touchdown.

7. Makes smooth, timely, and correct power and control adjustments to maintain proper pitch attitude and rate of descent to touchdown.

8. Contacts the water in the proper pitch attitude, and slows to idle taxi speed.

9. Maintains crosswind correction and directional control throughout the approach and landing sequence.

10. Completes the appropriate checklist.

G. TASK: ROUGH WATER TAKEOFF AND CLIMB (AMES)

NOTE: If a rough water condition does not exist, the applicant shall be evaluated by simulating the TASK.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to rough water takeoff and climb.

2. Positions the flight controls and flaps for the existing conditions.

3. Clears the area; selects an appropriate takeoff path considering wind, swells surface hazards, and/or vessels.

4. Retracts the water rudders as appropriate; advances the throttle smoothly to takeoff power.

5. Establishes and maintains an appropriate plaining attitude, directional control, and corrects for porpoising, skipping, or excessive bouncing.

6. Lifts off at minimum airspeed and accelerates to Vy, +10/-5 knots before leaving ground effect.

7. Retracts the landing gear, if appropriate, and flaps after a positive rate of climb is established.

8. Maintains takeoff power and Vy +10/-5 knots to a safe manoeuvring altitude.

9. Maintains directional control and proper wind-drift correction throughout takeoff and climb.

10. Completes the appropriate checklist.

H. TASK: ROUGH WATER APPROACH AND LANDING (AMES)

NOTE: If a rough water condition does not exist, the applicant shall be evaluated by simulating the TASK.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to rough water approach and landing.

2. Adequately surveys the intended landing area.

3. Considers the wind conditions, water, depth, hazards, surrounding terrain, and other watercraft.

4. Selects the most suitable approach path, and touchdown area.

5. Establishes the recommended approach and landing configuration and airspeed, and adjusts pitch attitude and power as required.

6. Maintains a stabilized approach and the recommended approach airspeed, or in its absence not more than 1.3 Vso +10/-5 knots with wind gust factor applied.

7. Makes smooth, timely, and correct power and control application during the roundout and touch down.

8. Contacts the water in the proper pitch attitude, and at the proper airspeed, considering the type of rough water.

9. Maintains crosswind correction and directional control throughout the approach and landing sequence.

10. Completes the appropriate checklist.

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to a go-around/rejected landing.

2. Makes a timely decision to discontinue the approach to landing.

3. Applies takeoff power immediately and transitions to climb pitch attitude for Vy and maintains Vy +10/-5 knots.

4. Retracts the flaps, as appropriate.
5. Retracts the landing gear, if appropriate, after a positive rate of climb is established.
6. Manoeuvres to the side of the runway/landing area to clear and avoid conflicting traffic.
7. Maintains takeoff power and Vy +10/-5 knots to a safe manoeuvring altitude.
8. Maintains directional control and proper wind-drift correction throughout the climb.
9. Completes the appropriate checklist.

V. AREA OF OPERATION: PERFORMANCE MANOEUVRE

A. TASK: STEEP TURNS (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to steep turns.
2. Establishes the manufacturer's recommended airspeed or if one is not stated, a safe airspeed not to exceed Va.
3. Rolls into a coordinated 360° turn; maintains a 45° bank.
4. Performs the task in the opposite direction, as specified by the examiner.
5. Divides attention between aeroplane control and orientation.
6. Maintains the entry altitude, ±100 feet (30 meters), airspeed, ±10 knots, bank, ±5°; and rolls out on the entry heading, ±100.

VII. AREA OF OPERATION: GROUND REFERENCE MANOEUVRES

NOTE: The examiner shall select at least one TASK.

A. TASK: RECTANGULAR COURSE (AMEL and

AMES) Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to a rectangular course.
2. Selects a suitable reference area.
3. Plans the manoeuvre so as to enter a left or right pattern, 600 to 1,000 feet AGL (180 to 300 meters) at an appropriate distance from the selected reference area, 45° to the downwind leg.

4. Applies adequate wind-drift correction during straight-and-turning flight to maintain a constant ground track around the rectangular reference area.

5. Divides attention between aeroplane control and the ground track while maintaining coordinated flight.

6. Maintains altitude, ±100 feet (30 meters); maintains airspeed, ±10 knots.

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to S-turns.

2. Selects a suitable ground reference line.

3. Plans the manoeuvre so as to enter at 600 to 1,000 feet (180 to 300 meters) AGL, perpendicular to the selected reference line.

4. Applies adequate wind-drift correction to track a constant radius turn on each side of the selected reference line.

5. Reverses the direction of turn directly over the selected reference line.

6. Divides attention between aeroplane control and the ground track while maintaining coordinated flight.

7. Maintains altitude, ±100 feet (30 meters); maintains airspeed, ±10 knots.

C. TASK: TURNS AROUND A POINT (AMEL and

AMES) Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to turns around a point.

2. Selects a suitable ground reference point.

3. Plans the manoeuvre so as to enter left or right at 600 to 1,000 feet (180 to 300 meters) AGL, at an appropriate distance from the reference point.

4. Applies adequate wind-drift correction to track a constant radius turn around the selected reference point.

5. Divides attention between aeroplane control and the ground track while maintaining coordinated flight.

6. Maintains altitude, ±100 feet (30 meters); maintains airspeed, ±10 knots.

VII. AREA OF OPERATION: NAVIAGATION

A. TASK: PILOTAGE AND DEAD RECKONING (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to pilotage and dead reckoning.
2. Follows the pre-planned course by reference to landmarks.
3. Identifies landmarks by relating surface features to chart symbols.
4. Navigates by means of pre-computed headings, groundspeeds, and elapsed time.
5. Corrects for and records the differences between preflight groundspeed, and heading calculations and those determined en route.
6. Verifies the aeroplane's position within three (3) nautical miles of the flight-planned route.
7. Arrives at the en route checkpoints within five (5) minutes of the initial or revised ETA and provides a destination estimate.
8. Maintains the appropriate altitude, ±200 feet (60 meters) and heading, ±15°.

B. TASK: NAVIGATION SYSTEMS AND RADAR SERVICES (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to navigation systems and radar services.
2. Demonstrates the ability to use an airborne electronic navigation system.
3. Locates the aeroplane's position using the navigation system.
4. Intercepts and tracks a given course, radial or bearing, as appropriate.
5. Recognizes and describes the indication of station passage, if appropriate.
6. Recognizes signal loss and takes appropriate action.
7. Uses proper communication procedures when utilizing radar services.
8. Maintains the appropriate altitude, ±200 feet (60 meters) and heading ±15°.

C. TASK: DIVERSION (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to diversion.
2. Selects an appropriate alternate aerodrome and route.

3. Makes an accurate estimate of heading, groundspeed, arrival time, and fuel consumption to the alternate aerodrome.

4. Maintains the appropriate altitude, ±200 feet (60 meters) and headings, ±15°.

D. TASK: LOST PROCEDURES (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to lost procedures.

2. Selects an appropriate course of action.

3. Maintains an appropriate heading and climbs, if necessary.

4. Identifies prominent landmarks.

5. Uses navigation systems/facilities and/or contacts an ATS facility for assistance, as appropriate.

VIII. AREA OF OPERATION: SLOW FLIGHT AND STALLS

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to manoeuvring during slow flight.

2. Selects an entry altitude that will allow the task to be completed no lower than 3,000 feet (920 meters) AGL.

3. Establishes and maintains an airspeed at which any further increase in angle of attack, increase in load factor, or reduction in power, would result in an immediate stall.

4. Accomplishes coordinated straight-and-level flight, turns, climbs, and descents with landing gear and flap configurations specified by the examiner.

5. Divides attention between aeroplane control and orientation.

6. Maintains the specified altitude, ±100 feet (30 meters); specified heading, ±10°; airspeed, +10/-0 knots and specified angle of bank, ±10°.

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to power-off stalls.

2. Selects an entry altitude that allows the task to be completed no lower than 3,000 feet (460 meters) AGL.

3. Establishes a stabilized descent in the approach or landing configuration, as specified by the examiner.

4. Transitions smoothly from the approach or landing attitude to a pitch attitude that will induce a stall.

5. Maintains a specified heading, ±10°, in straight flight; maintains a specified angle of bank not to exceed 20°, ±10°; in turning flight, while inducing the stall.

6. Recognizes and recovers promptly after a stall occurs by simultaneously reducing the angle of attack, increasing power to maximum allowable, and levelling the wings to return to a straight-and- level flight attitude with a minimum loss of altitude appropriate for the aeroplane.

7. Retracts the flaps to the recommended setting; retracts the landing gear, if retractable, after a positive rate of climb is established.

8. Accelerates to Vx or Vy speed before the final flap retraction; returns to the altitude, heading, and airspeed specified by the examiner.

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

NOTE: In some high performance aeroplanes the power setting may have to be reduced below the skill test standards guideline power setting to prevent excessively high pitch altitudes (greater than 30° nose up).

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to power-on stalls.

2. Selects an entry altitude that allows the task to be completed no lower than 3,000 feet (460 meters) AGL.\

3. Establishes the takeoff or departure configuration. Sets power to no less than 65 percent available power.

4. Transitions smoothly from the takeoff or departure attitude to the pitch attitude that will induce a stall.

5. Maintains a specified heading, ±10°, in straight flight; maintains a specified angle of bank not to exceed 20°, ±10°, in turning flight, while inducing the stall.

6. Recognizes and recovers promptly after the stall occurs by simultaneously reducing the angle of attack, increasing power to maximum allowable, and levelling the wings to return to a straight- and-level flight attitude with a minimum loss of altitude appropriate for the aeroplane.

7. Retracts the flaps to the recommended setting; retracts the landing gear if retractable, after a positive rate of climb is established.

8. Accelerates to Vx or Vy speed before the final flap retraction; returns to the altitude, heading, and airspeed specified by the examiner.

D. TASK: SPIN AWARENESS (AMEL and AMES)

Objective: To determine that the applicant exhibits knowledge of the elements related to spin awareness by explaining:

1. Aerodynamic factors related to spins.

2. Flight situations where unintentional spins may occur.

3. Procedures for recovery from unintentional spins.

IX. AREA OF OPERATION: BASIC INSTRUMENT MANOEUVRES

NOTE: The examiner shall select TASK E and at least two other TASKs. If the applicant holds an instrument-rating aeroplane he or she only needs to demonstrate TASK E.

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to attitude instrument flying during straight- and-level flight.

2. Maintains straight-and-level flight solely by reference to instruments using proper instrument cross-check and interpretation, and coordinated control application.

3. Maintains altitude, ±200 feet (60 meters); heading, ±20°; and airspeed, ±10 knots.

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to attitude instrument flying during constant airspeed climbs.

2. Establishes the climb configuration specified by the examiner.

3. Transitions to the climb pitch attitude and power setting on an assigned heading using proper instrument cross-check and interpretation, and coordinated control application.

4. Demonstrates climbs solely by reference to instruments at a constant airspeed to specific altitudes in straight flight and turns.

5. Levels off at the assigned altitude and maintains that altitude, ±200 feet (60 meters); maintains heading, ±20°; maintains airspeed, ±10 knots.

C. TASK CONSTANT AIRSPEED DESCENTS (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to attitude instrument flying during constant airspeed descents.

2. Establishes the descent configuration specified by the examiner.

3. Transitions to the descent pitch attitude and power setting on an assigned heading using proper instrument cross-check and interpretation, and coordinated control application.

4. Demonstrates descents solely by reference to instruments at a constant airspeed to specific altitudes in straight flight and turns.

5. Levels off at the assigned altitude and maintains that altitude, ±200 feet (60 meters); maintains heading, ±20°; maintains airspeed, ±10 knots.

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to attitude instrument flying during turns to headings.

2. Transitions to the level-turn attitude using proper instrument cross- check and interpretation, and coordinated control application.

3. Demonstrates turns to headings solely by reference to instruments; maintains altitude, ±200 feet (60 meters); maintains a standard rate turn and rolls out on the assigned heading, ±100; maintains airspeed, ±10 knots.

E. TASK: RECOVERY FROM UNUSUAL FLIGHT ALTITUDES (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to attitude instrument flying during unusual altitudes.

2. Recognizes unusual flight altitudes solely by reference to instruments; recovers promptly to a stabilized level flight attitude using proper instrument cross-check and interpretation and smooth, coordinated control application in the correct sequence.

F.TASK: RADIO COMMUNICATIONS, NAVIGATION YSTEMS/FACILITIES, AND RADAR SERVICES (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to radio communications, navigation systems/facilities, and radar services available for use during flight solely by reference to instruments.

2. Selects the proper frequency and identifies the appropriate facility.

3. Follows verbal instructions and/or navigation systems/facilities for guidance.

4. Determines the minimum safe altitude.

5. Maintains altitude, ±200 feet (60 meters); maintains heading, ±20°; maintains airspeed, ±10 knots.

X. AREA OF OPERATION: EMERGENCY OPERATIONS

NOTE: Examiners shall select an entry altitude that will allow the single engine demonstrations task to be completed no lower than 3,000 feet (920 meters) AGL or the manufacturer's recommended altitude, whichever is higher. At altitudes lower than 3,000 feet (920 meters) AGL, engine failure shall be simulating by reducing throttle to idle and then establishing zero thrust.

A. TASK: EMERGENCY DESCENT (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to an emergency descent.

2. Recognizes situations, such as depressurization, cockpit-smoke and/or fire that requires an emergency descent.

3. Establishes the appropriate airspeed and configuration for the emergency descent.

4. Exhibits orientation, division of attention, and proper planning.

5. Maintains positive load factors during the descent.

6. Completes appropriate checklists.

B. TASK: ENGINE FAILURE DURING TAKEOFF BEFORE VMC (SIMULATED AMEL and AMES)

NOTE: Engine failure (simulated) shall be accomplished before reaching 50 percent of the calculated Vmc.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to the procedure used for engine failure during takeoff prior to reaching Vmc.

2. Closes the throttles smoothly and promptly when simulated engine failure occurs.

3. Maintains directional control and applies brakes (AMEL) or flight controls (AMES), as necessary.

C. TASK: ENGINE FAILURE AFTER LIFT-OFF (SIMULATED-AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to the procedure used for engine failure after lift-off.

2. Recognizes a simulated engine failure promptly, maintains control, and utilizes appropriate emergency procedures.

3. Reduces drag, identifies and verifies the inoperative engine after simulated engine failure.

4. Simulates feathering the propeller on the inoperative engine. Examiner shall then establish zero-thrust on the inoperative engine.

5. Establishes Vyse; if obstructions are present, establishes Vxse or Vmc +5 knots, whichever is greater, until obstructions are cleared. Then transitions to Vyse.

6. Banks toward the operating engine as required for best performance

7. Monitors operating engine and makes adjustments as necessary.

8. Recognizes the aeroplane's performance capabilities. If a climb is not possible at Vyse, maintain Vyse and return to the departure aerodrome for landing, or initiates an approach to the most suitable landing area available.

9. Secures the (simulated) inoperative engine.

10. Maintains heading, ± 10°, and airspeed, ± 5 knots.

11. Completes appropriate emergency checklist.

D. TASK: APPROACH AND LANDING WITH AN INOPERATIVE ENGINE (SIMULATED- AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to an approach and landing with an engine inoperative to include engine failure on final approach.

2. Recognizes engine failure and takes appropriate action, maintains control, and utilizes recommended emergency procedures.

3. Banks toward the operating engine, as required, for best performance.

4. Monitors the operating engine and makes adjustments as necessary.

5. Maintains the recommended approach airspeed +10/-5, and landing configuration with a stabilized approach, until landing is assured.

6. Makes smooth, timely and correct control applications during roundout and touchdown.

7. Touches down on the first one-third of available runway, with no drift and the aeroplane's longitudinal axis aligned with and over the runway centre/landing path.

8. Maintains crosswind correction and directional control throughout the approach and landing sequence.

9. Completes appropriate checklists.

E. TASK: SYSTEMS AND EQUIPMENT MALFUNCTIONS (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to system and equipment malfunctions appropriate to the aeroplane provided for the skill test.

2. Analyzes the situation and takes the appropriate action for simulated emergencies appropriate to the aeroplane provided for the skill test for at least three (3) of the following:

    a. Partial or complete power loss.

    b. Engine roughness or overheat.

    c. Carburettor or induction icing.

    d. Loss of oil pressure.

    e. Fuel starvation.

    f. Electrical malfunction.

    g. Vacuum/pressure, and associated flight instruments malfunction.

    h. Pitot/static.

    i. Landing gear or flap malfunction.

j. Inoperative trim.

k. Inadvertent door or window opening.

l. Structural icing.

m. Smoke/fire/engine compartment fire.

n. Any other emergency appropriate to the aeroplane.

3. Follows the appropriate checklist or procedure.

F. TASK: EMERGENCY EQUIPMENT AND SURVIVAL GEAR (AMEL and AMES)

Objective: To determine that the applicant: Exhibits knowledge of the elements related to emergency equipment and survival gear appropriate to the aeroplane and environment encountered during flight. Identifies appropriate equipment that should be aboard the aeroplane.

XI. AREA OF OPERATION: MULTIENGINE OPERATIONS

NOTE: If the applicant is instrument rated, and has previously demonstrated instrument proficiency in a multiengine aeroplane or does not hold an instrument rating aeroplane TASKS D and C, need not be accomplished

A. TASK: MANOEUVRING WITH ONE ENGINE INOPERATIVE (AMEL and AMES)

NOTE: The feathering of one propeller shall be demonstrated in flight, in a multiengine aeroplane equipped with propellers, which can be safely feathered and un-feathered. The maneuver shall be performed at altitudes and positions where safe landings on established aerodromes can be readily accomplished. In the event a propeller cannot be unfeathered during the skill test, it shall be treated as an emergency.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to maneuvering with one engine inoperative.

2. Recognizes engine failure and maintains control.

3. Sets the engine controls, reduces drag, identifies and verifies the inoperative engine, and feathers appropriate propeller.

4. Establishes and maintains a bank toward the operating engine as required for best performance in straight and level flight.

5. Follows the prescribed checklists to verify procedures for securing the inoperative engine.

6. Monitors the operating engine and makes necessary adjustments.

7. Demonstrates coordinated flight with one engine inoperative (propeller feathered).

8. Restarts the inoperative engine using appropriate restart procedures.

9. Maintains altitude ±100 feet (30 meters) or minimum sink as appropriate and heading ±10°.

10. Completes the appropriate checklists.

B. TASK: Vmc DEMONSTRATION (AMEL and AMES)

NOTE 1: An applicant seeking a aeroplane-multiengine land (AMEL) rating, "Limited to Centre Thrust," is not required to be evaluated on this TASK.

NOTE 2: Aeroplanes with normally aspirated engines will lose power as altitude increases because of the reduced density of the air entering the induction system of the engine. This loss of power will result in a Vmc lower than the stall speed at higher altitudes. Therefore, recovery should be made at the first indication of loss of directional control, stall warning, or buffet. Do not perform this manoeuvre by increasing the pitch attitude to a high angle with both engines operating and then reducing power on the critical engine. This technique is hazardous and may result in loss of aeroplane control.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to Vmc by explaining the causes of loss of directional controls at airspeeds less than Vmc, the factors affecting Vmc and the safe recovery procedures.

2. Configures the aeroplane at VsseNyse, as appropriate-

    a. Landing gear retracted.

    b. Flaps set for takeoff.

    c. Cowl flaps set for takeoff.

    d. Trim set for takeoff.

    e. Propellers set for high RPM.

    f. Power on critical engine reduced to idle.

    g. Power on operating engine set to takeoff or maximum available power.

3. Establishes a single-engine climb attitude with the airspeed at approximately 10 knots above Vsse.

4. Establishes a bank toward the operating engine, as required for best performance and controllability.

5. Increases the pitch attitude slowly to reduce the airspeed at approximately 1 knot per second while applying rudder pressure to maintain directional control until full rudder is applied.

6. Recognizes indications of loss of directional control, stall warning or buffet.

7. Recovers promptly by simultaneously reducing power sufficiently on the operating

8. engine while decreasing the angle of attack as necessary to regain airspeed and directional control. Recovery SHOULD NOT be attempted by increasing the power on the simulated failed engine.

9. Recovers within 20° of the entry heading.

10. Advances power smoothly on operating engine and accelerates to VxseNyse, as appropriate, +10/-5 knots, during the recovery.

C. TASK: ENGINE FAILURE DURING FLIGHT (By Reference to Instruments) (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements by explaining the procedures used during instrument flight with one engine inoperative.

2. Recognizes engine failure, sets the engine controls, reduces drag, identifies, and verifies the inoperative engine and feathers appropriate engine propeller.

3. Establishes and maintains a bank toward the operating engine as required for best performance in straight and level.

4. Follows the prescribed checklists to verify procedures for securing the inoperative engine.

5. Monitors the operating engine and makes necessary adjustments.

6. Demonstrates coordinated flight with one engine inoperative.

7. Maintains altitude ± 100 feet (30 meters), or minimum sink as appropriate and heading ± 10°, bank ± 5°, and levels off from climbs and descents within ± 100 feet (30 meters).

D. TASK: INSTRUMENT APPROACH-ONE ENGINE INOPERATIVE (By Reference to Instruments) (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements by explaining the procedures used during a published instrument approach with one engine inoperative.

2. Recognizes engine failure, sets the engine controls, reduces drag, identifies and verifies the inoperative engine, and feathers appropriate engine propeller.

3. Establishes and maintains a bank toward the operating engine, as required, for best performance in straight and level flight.

4. Follows the prescribed checklists to verify procedures for securing the inoperative engine.

5. Monitors the operating engine and makes necessary adjustments.

6. Requests and receives an actual or a simulated ATS clearance for an instrument approach.

7. Follows the actual or a simulated ATS clearance for an instrument approach.

8. Maintains altitude within 100 feet (30 meters), the airspeed within ± 10 knots if within the aircraft's capability, and heading ±10.

9. Establishes a rate of descent that will ensure arrival at the MDA or DH/DA, with the aeroplane in a position from which a descent to a landing, on the intended runway can be made, either straight in or circling as appropriate.

10. On final approach segment, no more than three-quarter-scale deflection of the CDI/glide slope indicator. For RMI or ADF indicators, within 10° of the course.

11. Avoids loss of aircraft control, or attempted flight contrary to the engine-inoperative operating limitations of the aircraft.

12. Complies with the published criteria for the aircraft approach category when circling.

13. Completes landing and appropriate checklists.

XII. AREA OF OPERATION: NIGHT OPERATION

A. TASK: NIGHT PREPARATION (AMEL and AMES)

Objective: To determine that the applicant exhibits knowledge of the elements related to night operations by explaining:

1. Physiological aspects of night flying as it relates to vision.

2. Lighting systems identifying aerodromes, runways, taxiways and obstructions, and pilot controlled lighting.

3. Aeroplane lighting systems.

4. Personal equipment essential for night flight.

5. Night orientation, navigation, and chart reading techniques.

6. Safety precautions and emergencies unique to night flying.

XIII. AREA OF OPERATION: POSTFLIGHT PROCEDURES

NOTE: The examiner shall select TASK A and for AMES applicants at least one other TASK.

A. TASK: AFTER LANDING, PARKING, AND SECURING (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to after landing, parking and securing procedures.

2. Maintains directional control after touchdown while decelerating to an appropriate speed.

3. Observes runway hold lines and other surface control markings and lighting.

4. Parks in an appropriate area, considering the safety of nearby persons and property.

5. Follows the appropriate procedure for engine shutdown.

6. Completes the appropriate checklist.

7. Conducts an appropriate postflight inspection and secures the aircraft.

B. TASK: ANCHORING (AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to anchoring.

2. Selects a suitable area for anchoring, considering seaplane movement, water depth, tide, wind, and weather changes.

3. Uses an adequate number of anchors and lines of sufficient strength and length to ensure the seaplane's security.

C. TASK: DOCKING AND MOORING (AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to docking and mooring.

2. Approaches the dock or mooring buoy in the proper direction considering speed, hazards, wind, and water current.

3. Ensures seaplane security.

D.TASK: RAMPING/BEACHING (AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to ramping/beaching.

2. Approaches the ramp/beach considering persons and property, in the proper attitude and direction, at a safe speed, considering water depth, tide, current, and wind.

3. Ramps/beaches and secures the seaplane in a manner that will protect it from the harmful effect of wind, waves, and changes in water level.

CHAPTER 3: COMMERCIAL PILOT LICENCE (CPL) SINGLE-ENGINE LAND

ADDITIONAL RATING TASK TABLES

a. Aeroplane Single-Engine Land

Addition of an Aeroplane Single-Engine Land Rating to an existing Commercial Pilot Licence								
Required TASKs are indicated by either the TASK letter(s) that apply(s) or an indication that all or none of the TASKs must be tested based on the notes in each AREA OF OPERATION.								
COMMERCIAL PILOT RATING (S) HELD								
AREAS OF OPER-ATION	**ASES**	**AMEL**	**AMES**	**RH**	**RG**	**Glider**	**Balbon**	**Airship**
I	F,G	F,G	E.G	E.G	F,G	F,G	F,G	F,G
II	D	NONE	D	A,C,D,F	A,D,F	A,B,C.D,F	AB,C,D,F	A,B,C,D,F
III	C	NONE	C	B,C	NONE	B,C	B,C	B,C
IV	A,B,C,D ,E,F,K	A,B,C,D, E,F,K	A,B,C,D, E,F,K	A,B,C,D,E, F,K,L	A,B,C,D,E,F ,K,L	A,B,C,D,E,F ,K,L	A,B,C,D,E,F, K,L	A,B,C,D,E,F, K,L
v	NONE	B,C,D	B,C,D	ALL	ALL	ALL	ALL	ALL
VI	NONE	ALL	ALL	ALL	ALL	ALL	ALL	ALL
VII	NONE	NONE	NONE	NONE	NONE	ALL	ALL	NONE
VIII	NONE	NONE	NONE	ALL	ALL	ALL	ALL	ALL
IX	A,8	A,B	A,B	ALL	ALL	ALL	ALL	ALL
x	NONE	NONE	NONE	ALL	ALL	ALL	ALL	ALL
XI	A	NONE	A	A	A	A	A	A

I. AREA OF OPERATION: PREFLIGHT PREPARATION

NOTE: The examiner shall develop a scenario based on real time weather to evaluate TASKs C and D. A.

A. TASK: CERTIFICATES AND DOCUMENTS (ASEL and ASES)

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

1. Explaining –
    a. CPL privileges limitations and recent flight experience requirements
    b. Medical certificate class and duration.
    c. Pilot logbook or flight records.
2. Locating and Explaining –
    a. airworthiness and registration certificates.
    b. operating limitations, placards, instrument markings, and POH/AFM.
    c. mass and balance data and equipment list.

B. TASK: AIRWORTHINESS REQUIREMENTS (ASEL and ASES)

Objective: To determine that the applicant exhibits knowledge of the elements related to airworthiness requirements by:

1. Expalining –
    a. required instruments and equipment for day/night VFR.
    b. procedures and limitations for determining airworthiness of the aeroplane with inoperative instruments and equipment with and without an MEL.
    c. requirements and procedures for obtaining a special flight permit
2. Locating and explaining -
    a. airworthiness directives.
    b. compliance records.
    c. maintenance/inspection requirements.

d. appropriate record keeping.

C. TASK: WEATHER INFORMATION (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to weather information by analyzing weather reports, charts, and forecasts from various sources with emphasis on -

   a. METAR, TAF, and

   FA.

   b. surface analysis chart.

   c. radar summary chart.

   d. winds and temperature aloft chart.

   e. significant weather prognostic charts.

   f. convective outlook chart.

   g. AWOS, ASOS, and ATIS reports.

2. Makes a competent "go/no-go" decision based on available weather information.

D. TASK: CROSS-COUNTRY FLIGHT PLANNING (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to cross-country flight planning by presenting and explaining a pre-planned VFR cross-country flight, as previously assigned by the examiner. On the day of the practical test, the final flight plan shall be to the first fuel stop, based on maximum allowable passengers, baggage, and/or cargo loads using real time weather.

2. Uses appropriate and current aeronautical charts.

3. Properly identifies airspace, obstructions, and terrain features.

4. Selects easily identifiable en route checkpoints.

5. Selects most favourable altitudes considering weather conditions and equipment capabilities.

6. Computes headings, flight time, and fuel requirements.

7. Selects appropriate navigation system/facilities and communication frequencies.

8. Applies pertinent information from NOTAMs, A/FD, and other flight publications.

9. Completes a navigation log and simulates filing a VFR flight plan.

E. TASK: NATIONAL AIRSPACE SYSTEM (ASEL and ASES)

Objective: To determine that the applicant exhibits knowledge of the elements related to the National Airspace System by explaining:

1. Basic VFR weather minimums-for all classes of airspace.

2. Airspace classes-their operating rules, pilot licences, 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 and other airspace areas.

F. TASK: PERFORMANCE AND LIMITATIONS (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to performance and limitations by explaining the use of charts, tables, and data to determine performance and the adverse effects of exceeding limitations.

2. Computes mass and balance. Determines if the computed mass and centre of gravity is within the aeroplane's operating limitations and if the mass and centre of gravity will remain within limits during all phases of flight.

3. Demonstrates use of the appropriate performance charts, tables, and data.

4. Describes the effects of atmospheric conditions on the aeroplane's performance.

G. TASK: OPERATION OF SYSTEMS (ASEL and ASES)

Objective: To determine that the applicant exhibits knowledge of the elements related to the operation of systems on the aeroplane provided for the practical test, by explaining at least five (5) of the following systems.

1. Primary flight 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 flight instruments.
10. Environmental.
11. De-icing and anti-icing.

H. TASK: WATER AND SEAPLANE CHARACTERISTICS (ASES)

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

1. The characteristics of a water surface as affected by features, such as-
    a. Size and location.
    b. Protected and unprotected area.
    c. Surface wind.
    d. Direction and strength of water current.
    e. Floating and partially submerged debris.
    f. Sandbars, island, and shoals.
    g. Vessel traffic, and wakes.
    h. Other features peculiar to the sea.
2. Float and hull construction, and their effect on seaplane performance.
3. Causes of proposing and skipping, and pilot and action required to power or correct there corrections.

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

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

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

J. TASK: AEROMEDICAL FACTORS (ASEL and ASES)

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

1. The symptoms, causes, effects, and corrective actions of at least four (4) of the following-
    a. hypoxia.
    b. hyperventilation.
    c. middle ear and sinus problems.
    d. spatial disorientation.
    e. motion sickness.
    f. carbon monoxide poisoning.
    g. stress and fatigue.
    h. dehydration.
2. The effects of alcohol, drugs, and over-the-counter medications.
3. The effects of excess nitrogen during scuba dives upon a pilot or passenger in flight.

II. AREA OF OPERATION: PREFLIGHT PROCEDURES

A. TASK: PREFLIGHT INSPECTION (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to preflight inspection. This shall include which items must be inspected, the reasons for checking each item, and how to detect possible defects.

2. Inspects the aeroplane with reference to an appropriate checklist.

3. Verifies that the aeroplane is in condition for safe flight.

B. TASK: COCKPIT MANAGEMENT (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to cockpit management procedures.

2. Ensures all loose items in the cockpit and cabin are secured.

3. Organizes material and equipment in an efficient manner so they are readily available.

4. Briefs occupants on the use of safety belts, shoulder harnesses, doors, and emergency procedures.

C. TASK: ENGINE STARTING (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to recommended engine starting procedures. This shall include the use of an external power source, hand propping safety, and starting under various atmospheric conditions.

2. Positions the aeroplane properly considering structures, surface conditions other aircraft, and the safety of nearby persons and property.

3. Utilizes the appropriate checklist for starting procedure.

E. TASK: TAXIING (ASEL)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to safe taxi procedures.

2. Performs a brake check immediately after the aeroplane begins moving.

3. Positions flight controls properly for the existing wind conditions.

4. Controls direction and speed without excessive use of brakes.

5. Complies with aerodrome/taxiway markings, signals, ATC clearances and instructions.

6. Taxies so as to avoid other aircraft and hazards.

E. TASK: TAXIING AND SAILING (ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to water taxi and sailing procedures.
2. Positions the flight controls properly for the existing wind conditions.
3. Plans and follows the most favourable course while taxi or sailing considering wind, water current, water conditions and maritime regulations.
4. Uses the appropriate idle, plow, or step taxi technique.
5. Uses flight controls, flaps, doors, water rudder, and power correctly so as to follow the desired course while sailing.
6. Prevents and corrects for porpoising and skipping.
7. Avoids other aircraft, vessels, and hazards.
8. Complies with seaplane base signs, signals, and clearances.

F. TASK: BEFORE TAKEOFF CHECK (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to the before takeoff check. This shall include the reasons for checking each item and how to detect malfunctions.
2. Positions the aeroplane properly considering other aircraft/vessels, wind and surface conditions.
3. Divides attention inside and outside the cockpit.
4. Ensures the engine temperatures and pressure are suitable for run-up and takeoff.
5. Accomplishes the before takeoff checklist and ensures the aeroplane is in safe operating condition.
6. Reviews takeoff performance airspeeds, takeoff distances, departure and emergency procedures.
7. Avoids runway incursion and/or ensures no conflict with traffic prior to taxiing into takeoff position.

III. AREA OF OPERATION: AERODROME AND SEAPLANE BASE OPERATIONS

A. RADIO COMMUNICATIONS AND ATS LIGHT SIGNALS (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to radio communications and ATC light signals.
2. Selects appropriate frequencies.
3. Transmits using recommended phraseology.
4. Acknowledges radio communications and complies with instructions.

B. TASK: TRAFFIC PATTERNS/CIRCUTS (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to traffic patterns. This shall include procedures at aerodromes with and without operating control towers, prevention of runway incursions, collision avoidance, wake turbulence avoidance, and wind shear.
2. Complies with proper traffic pattern procedures.
3. Maintains proper spacing from other aircraft.
4. Corrects for wind-drift to maintain proper ground track.
5. Maintains orientation with runway/landing area in use.
6. Maintains traffic pattern altitude ±100 feet (30 meters), and appropriate airspeed ± 10 knots.

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to aerodrome/seaplane base, runway, and taxiway operations with emphasis on runway incursion avoidance.
2. Properly identifies and interprets aerodrome/seaplane base, runway, and taxiway signs, markings, and lighting.

IV. AREA OF OPERATION: TAKEOFFS, LANDINGS, AND GO-ABOUNDS

A. TASK: NORMAL AND CROSSWIND TAKEOFF AND CLIMB (ASEL and ASES)

NOTE: If a crosswind condition does not exist, the applicant's knowledge of crosswind elements shall be evaluated through oral testing.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to normal and crosswind takeoff climb operations and rejected takeoff procedures.

2. Positions the flight controls for the existing wind conditions.

3. Clears the area, taxies onto the takeoff surface and aligns the aeroplane on the runway centre/takeoff path.

4. Retracts the water rudders as appropriate (ASES), and advances the throttle smoothly to takeoff power.

5. Establishes and maintains the most efficient planning/lift off attitude and corrects for porpoising and skipping (ASES).

6. Lifts off at the recommended airspeed, and accelerates to Vy.

7. Establishes a pitch attitude that will maintain Vy,±5 knots.

8. Retracts the landing gear if appropriate, and flaps after a positive rate of climb is established.

9. Maintains takeoff power and Vy ±5 knots to a safe maneuvering altitude.

10. Maintains directional control, proper wind-drift correction throughout the takeoff and climb.

11. Complies with noise abatement procedures.

12. Completes appropriate checklists.

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

NOTE: If a crosswind condition does not exist, the applicant's knowledge of the crosswind elements shall be evaluated through oral testing.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to normal and crosswind approach and landing.

2. Adequately surveys the intended landing area (ASES).

3. Considers the wind conditions, landing surface, obstructions, and selects a suitable touchdown point.

4. Establishes the recommended approach and landing configuration and airspeed and adjusts pitch attitude and power as required.

5. Maintains a stabilized approach and recommended airspeed, or in its absence, not more than 1.3 Vso, ±5 knots, with wind gust factor applied.

6. Makes smooth, timely, and correct control application during the roundout and touchdown.

7. Contacts the water at the proper pitch attitude (ASES).

8. Touches down smoothly at approximate stalling speed (ASEL).

9. Touches down at or within 200 feet (60 meters) beyond a specified point, with no drift, and with the aeroplane's longitudinal axis aligned with and over the runway centre/landing path.

10. Maintains crosswind correction and directional control throughout the approach and landing sequence.

11. Completes appropriate checklist.

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to a soft-field takeoff and climb.

2. Positions the flight controls for existing conditions and to maximize lift as quickly as possible.

3. Clears the area; taxies onto takeoff surface at a speed consistent with safety without stopping while advancing the throttle smoothly to takeoff power.

4. Establishes and maintains a pitch attitude that will transfer the mass of the aeroplane from the wheels to the wings as rapidly as possible.

5. Lifts off at the lowest possible airspeed and remains in ground effect while accelerating to Vx or Vy, as appropriate.

6. Establishes a pitch attitude for Vx or Vy, as appropriate, and maintains selected airspeed ±5 knots, during the climb.

7. Retracts the landing gear, if appropriate and flaps after clear of any obstacles or as recommended by the manufacturer.

8. Maintains takeoff power and Vx or Vy ±5 knots to a safe manoeuvring altitude.

9. Maintains directional control and proper wind-drift correction throughout the takeoff and climb.

10. Completes appropriate checklist.

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to a soft-field approach and landing.
2. Considers the wind conditions, landing surface, and obstructions, and selects the most suitable touchdown area.
3. Establishes the recommended approach and landing configuration and airspeed; adjusts pitch attitude and power as required.
4. Maintains a stabilized approach and recommended airspeed, or in its absence, not more than 1.3 VSO, ±5 knots, with wind gust factor applied.
5. Makes smooth, timely, and correct control application during the roundout and touchdown.
6. Touches down softly, with no drift, and with the aeroplane's longitudinal axis aligned with the runway/landing path.
7. Maintains crosswind correction and directional control throughout the approach and landing sequence.
8. Maintains proper position of the flight controls and sufficient speed to taxi on the soft surface.
9. Completes appropriate checklist.

E. TASK: SHORT-FIELD TAKEOFF (CONFINED AREA-ASES) AND MAXIMUM PREFORMANCE CLIMB (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to a short-field (confined area ASES) takeoff and maximum performance climb.
2. Positions the flight controls for the existing wind conditions, sets flaps as recommended.
3. Clears the area; taxies into takeoff position utilizing maximum available takeoff area and aligns the aeroplane on the runway centre/takeoff path.
4. Selects an appropriate take-off path for the existing conditions (ASES).
5. Applies brakes (if appropriate) while advancing the throttle smoothly to takeoff power.
6. Establishes and maintains the most efficient planning/lift off attitude and corrects for porpoising and skipping (ASES).
7. Lifts off at the recommended airspeed, and accelerates to recommended obstacle clearance airspeed, or Vx.

8. Establishes a pitch attitude that will maintain the recommended obstacle clearance airspeed, or Vx, +5/-0 knots, until the obstacle is cleared, or until the aeroplane is 50 feet (20 meters) above the surface.

9. After clearing the obstacle, establishes the pitch attitude for Vy, accelerates to Vy, and maintains Vy, ±5 knots, during the climb.

10. Retracts the landing gear, if appropriate and flaps after clear of any obstacles or as recommended by manufacturer.

11. Maintains takeoff power and Vy ±5 knots to a safe manoeuvring altitude.

12. Maintains directional control and proper wind-drift correction throughout the takeoff and climb.

13. Completes appropriate checklist.

F. TASK: SHORT-FIELD APPROACH (CONFINED AREA-ASES) AND LANDING (ASEL AND ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to a short-field (confined area ASES) approach and landing.

2. Adequately surveys the intended landing area (ASES).

3. Considers the wind conditions, landing surface, obstructions, and selects the most suitable touchdown point.

4. Establishes the recommended approach and landing configuration and airspeed; adjusts pitch attitude and power.

5. Maintains a stabilized approach and recommended approach airspeed, or in its absence, not more than 1.3 VSO, ±5 knots, with wind gust factor applied.

6. Makes smooth, timely, and correct control application during the roundout and touchdown.

7. Selects the proper landing path, contacts the water at the minimum safe airspeed with the proper pitch attitude for the surface conditions (ASES).

8. Touches down smoothly at minimum control airspeed (ASEL).

9. Touches down at or within 100 feet (30 meters) beyond a specified point, with no side drift, minimum float and with the aeroplane's longitudinal axis aligned with and over the runway centre/landing path.

10. Maintains crosswind correction and directional control throughout the approach and landing sequence.

11. Applies brakes (ASEL) or elevator control (ASES), as necessary, to stop in the shortest distance consistent with safety.

12. Completes appropriate checklist.

G. TASK: GLASSY WATER TAKEOFF AND CLIMB (ASES)

NOTE: If a glassy water condition does not exist, the applicant shall be evaluated by simulating the TASK.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to glassy water takeoff and climb.
2. Positions the flight controls and flaps for the existing conditions.
3. Clears the area; selects an appropriate takeoff path considering surface hazards and/or vessels and surface conditions.
4. Retracts the water rudders as appropriate; advances the throttle smoothly to takeoff power.
5. Establishes and maintains an appropriate planning attitude, directional control, and corrects for porpoising, skipping, and increases in water drag.
6. Utilizes appropriate techniques to lift seaplane from the water considering surface conditions.
7. Establishes proper attitude/airspeed, and accelerates to Vy, ± 5 knots during the climb.
8. Retracts the landing gear, if appropriate, and flaps after a positive rate of climb is established.
9. Maintains takeoff power and Vy ±5 knots to a safe manoeuvring altitude.
10. Maintains directional control and proper wind-drift correction throughout takeoff and climb.
11. Completes the appropriate checklist.

H. TASK: GLASSY WATER APPROACH AND LANDING (ASES)

NOTE: If a glassy water condition does not exist, the applicant shall be evaluated by simulating the TASK.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to glassy water approach and landing.
2. Adequately surveys the intended landing area.
3. Considers the wind conditions, water depth, hazards, surrounding terrain, and other watercraft.
4. Selects the most suitable approach path, and touchdown area.

5. Establishes the recommended approach and landing configuration and airspeed, and adjusts pitch attitude and power as required.

6. Maintains a stabilized approach and the recommended approach airspeed, ± 5 knots and maintains a touchdown pitch attitude and descent rate from the last altitude reference until touchdown.

7. Makes smooth, timely, and correct power and control adjustments to maintain proper pitch attitude and rate of descent to touchdown.

8. Contacts the water in the proper pitch attitude, and slows to idle taxi speed.

9. Maintains crosswind correction and directional control throughout the approach and landing sequence.
10. Completes the appropriate checklist.

I. TASK: ROUGH WATER TAKEOFF AND CLIMB (ASES)

NOTE: If a rough water condition does not exist, the applicant shall be evaluated by simulating the TASK.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to rough water takeoff and climb.

2. Positions the flight controls and flaps for the existing conditions.

3. Clears the area; selects an appropriate takeoff path considering wind, swells surface hazards and/or vessels.

4. Retracts the water rudders as appropriate; advances the throttle smoothly to takeoff power.

5. Establishes and maintains an appropriate planning attitude, directional control, and corrects for porpoising, skipping, or excessive bouncing.

6. Lifts off at minimum airspeed and accelerates to Vy, ± 5 knots before leaving ground effect.

7. Retracts the landing gear, if appropriate, and flaps after a positive rate of climb is established.

8. Maintains takeoff power and Vy ±5 knots to a safe manoeuvring altitude.

9. Maintains directional control and proper wind-drift correction throughout takeoff and climb.

10. Completes the appropriate checklist.

J. TASK: ROUGH WATER APPROACH AND LANDING (ASES)

NOTE: If a rough water condition does not exist, the applicant shall be evaluated by simulating the TASK.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to rough water approach and landing.
2. Adequately surveys the intended landing area.
3. Considers the wind conditions, water, depth, hazards, surrounding terrain, and other watercraft.
4. Selects the most suitable approach path, and touchdown area.
5. Establishes the recommended approach and landing configuration and airspeed, and adjusts pitch attitude and power as required.
6. Maintains a stabilized approach and the recommended approach airspeed, or in its absence not more than 1.3 Vso ± 5 knots with wind gust factor applied.
7. Makes smooth, timely, and correct power and control application during the roundout and touch down.
8. Contacts the water in the proper pitch attitude, and at the proper airspeed, considering the type of rough water.
9. Maintains crosswind correction and directional control throughout the approach and landing sequence.
10. Completes the appropriate checklist.

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to a power-off 180° accuracy approach and landing.
2. Considers the wind conditions, landing surface, obstructions, and selects an appropriate touchdown point.
3. Positions aeroplane on downwind leg, parallel to landing runway, and not more than 1000 feet AGL.
4. Abeam the specified touchdown point, closes throttle and establishes appropriate glide speed.
5. Completes final aeroplane configuration.

6. Touches down in a normal landing attitude, at or within 200 feet (60 meters) beyond the specified touchdown point.

7. Completes the appropriate checklist.

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to a go-around/rejected landing.

2. Makes a timely decision to discontinue the approach to landing.

3. Applies takeoff power immediately and transitions to climb pitch attitude for Vy, and maintains Vy ±5 knots.

4. Retracts flaps as appropriate.

5. Retracts the landing gear if appropriate after a positive rate of climb is established.

6. Maneuvers to the side of runway/landing area to clear and avoid conflicting traffic.

7. Maintains takeoff power and Vy ±5 knots to a safe maneuvering altitude.

8. Maintains directional control and proper wind-drift correction throughout the climb.

9. Completes the appropriate checklist.

V. AREA OF OPERATION: PERFORMANCE MANOEUVRES

NOTE: The examiner shall at least select either TASK A or B, and either C or D.

A. TASK: STEEP TURNS (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to steep turns.

2. Establishes the manufacturer's recommended airspeed or if one is not stated, a safe airspeed not to exceed VA.

3. Rolls into a coordinated 360° steep turn with at least a 50° bank, followed by a 360° steep turn in the opposite direction.

4. Divides attention between aeroplane control and orientation.

5. Maintains the entry altitude, ±100 feet (30 meters), airspeed, ±10 knots, bank, ±5°; and rolls out on the entry heading, ±10°.

B. TASK: STEEP SPIRAL (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to a steep spiral.
2. Selects an altitude sufficient to continue through a series of at least three 360° turns.
3. Selects a suitable ground reference point.
4. Applies wind-drift correction to track a constant radius circle around selected reference point with bank not to exceed 60° at steepest point in turn.
5. Divides attention between aeroplane control and ground track, while maintaining coordinated flight.
6. Maintains the specified airspeed, ±10 knots, rolls out toward object or specified heading, ±10°.

C. TASK: CHANDELLES (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to chandelles.
2. Selects an altitude that will allow the manoeuvre to be performed no lower than 1,500 feet AGL (460 meters).
3. Establishes the recommended entry configuration, power, and airspeed.
4. Establishes the angle of bank at approximately 30°.
5. Simultaneously applies power and pitch to maintain a smooth, coordinated climbing turn to the 90° point, with a constant bank.
6. Begins a coordinated constant rate rollout from the 90° point to the 180° point maintaining power and a constant pitch attitude.
7. Completes rollout at the 180° point, ±10° just above a stall airspeed, and maintaining that airspeed momentarily avoiding a stall.
8. Resumes straight and level flight with minimum loss of altitude.

D. TASK: LAZY EIGHTS (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to lazy eights.
2. Selects an altitude that will allow the task to be performed no lower than 1,500 feet AGL (460 meters).

3. Establishes the recommended entry configuration, power, and airspeed.
4. Maintains coordinated flight throughout the manoeuvre.
5. Achieves the following throughout the manoeuvre-
    a. approximately 30° bank at the steepest point.
    b. constant change of pitch and roll rate.
    c. altitude tolerance at 180° points, ±100 feet (30 meters) from entry altitude.
    d. airspeed tolerance at the 180° point plus ±10° knots from entry airspeed.
    e. heading tolerance at the 180° point ±10°.
6. Continues the manoeuvre through the number of symmetrical loops specified and resumes straight an level flight.

VI. AREA OF OPERATION: GROUND REFERENCE MANOEUVRE

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to eights on pylons. Determines the approximate pivotal altitude.
2. Selects suitable pylons, that will permit straight and level flight, between the pylons.
3. Enters the maneuver at the appropriate altitude and airspeed and at a bank angle of approximately 30° to 40° at the steepest point.
4. Applies the necessary corrections so that the line-of-sight reference line remains on the pylon.
5. Divides attention between accurate coordinated aeroplane control and outside visual references.
6. Holds pylon using appropriate pivotal altitude avoiding slips and skids.

VII. AREA OF OPERATION: NAVIGATION

A. TASK: PILOTAGE AND DEAD RECKONING (ASEL and ASES) Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to pilotage and dead reckoning.
2. Follows the preplanned course by reference to landmarks.

3. Identifies landmarks by relating surface features to chart symbols.

4. Navigates by means of precomputed headings, groundspeed, and elapsed time.

5. Corrects for and records differences between preflight groundspeed and heading calculations and those determined en route.

6. Verifies the aeroplane's position within two (2) nautical miles of flight-planned route.

7. Arrives at the en route checkpoints within three (3) minutes of the initial or revised ETA and provides a destination estimate.

8. Maintains appropriate altitude, ±100 feet (30 meters), and headings, ±10°.

B. TASK: NAVIGATION SYSTEMS AND RADAR SERVICES (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to navigation systems and radar services.

2. Demonstrates the ability to use an airborne electronic navigation system.

3. Locates the aeroplane's position using the navigation system.

4. Intercepts and tracks a given course, radial, or bearing as appropriate.

5. Recognizes and describes the indication of station passage if appropriate.

6. Recognizes signal loss and takes appropriate action.

7. Uses proper communication procedures when utilizing radar services.

8. Maintains the appropriate altitude, ±100 feet (30 meters) and heading, ±10°.

C. TASK: DIVERSION (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to diversion.

2. Selects an appropriate alternate aerodrome and route.

3. Consumption to the alternate aerodrome.

4. Maintains the appropriate altitude, ±100 feet (30 meters), and heading, ±10°.

D. TASK: LOST PROCEDURES (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to lost procedures.

2. Selects an appropriate course of action.

3. Maintains an appropriate heading and climbs, if necessary.

4. Identifies prominent landmarks.

5. Uses navigation systems/facilities and/or contacts an ATC facility for assistance as appropriate.

VIII. AREA OF OPERATION: SLOW FLIGHT AND STALLS

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to manoeuvring during slow flight.

2. Selects an entry altitude that will allow the task to be completed no lower than 1,500 feet (460 meters) AGL.

3. Establishes and maintains an airspeed at which any further increase in angle of attack, increase in load factor, or reduction in power, would result in an immediate stall.

4. Accomplishes coordinated straight-and-level flight, turns, climbs, and descents with landing gear and flap configurations specified by the examiner.

5. Divides attention between aeroplane control and orientation.

6. Maintains the specified altitude, ±50 feet (15 meters); specified heading, ±10°; airspeed +5/-0 knots, and specified angle of bank, ±5°.

B. TASK: POWER-OFF STALL (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to power-off stalls.

2. Selects an entry altitude that allows the task to be completed no lower than 1,500 feet (460 meters) AGL.

3. Establishes a stabilized descent in the approach or landing configuration, as specified by the examiner.

4. Transitions smoothly from the approach or landing attitude to a pitch attitude that will induce a stall.

5. Maintains a specified heading, ±10° in straight flight; maintains a specified angle of bank, not to exceed 20°, ±5°, in turning flight while inducing the stall.

6. Recognizes and recovers promptly as the stall occurs by simultaneously reducing the angle of attack, increasing power to maximum allowable, and levelling the wings to return to a straight-and-level flight attitude with a minimum loss of altitude appropriate for the aeroplane.

7. Retracts the flaps to the recommended setting, retracts the landing gear if retractable after a positive rate of climb is established.

8. Accelerates to VX or Vy speed before the final flap retraction; returns to the altitude, heading, and airspeed specified by the examiner.

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

NOTE: In some high performance aeroplanes, the power setting may have to be reduced below the practical test standards guideline power setting to prevent excessively high pitch altitudes (greater than 30° nose up).

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to power-on stalls.

2. Selects an entry altitude that allows the task to be completed no lower than 1,500 feet (460 meters) AGL.

3. Establishes the takeoff or departure configuration. Sets power to no less than 65 percent available power.

4. Transitions smoothly from the takeoff or departure attitude to a pitch attitude that will induce a stall.

5. Maintains a specified heading ±5°, in straight flight; maintains a specified angle of bank, not to exceed a 20°, ±10°, in turning flight, while inducing the stall.

6. Recognizes and recovers promptly as the stall occurs by simultaneously reducing the angle of attack, increasing power to maximum allowable, and levelling the wings to return to a straight-and-level flight attitude, with a minimum loss of altitude appropriate for the aeroplane.

7. Retracts flaps to the recommended setting, retracts the landing gear if retractable, after a positive rate of climb is established.

8. Accelerates to VX or Vy speed before the final flap retraction; returns to the altitude, heading, and airspeed specified by the examiner.

D. TASK: SPIN AWARENESS (ASEL and ASES)

Objective: To determine that the applicant exhibits knowledge of the elements related to spin awareness by explaining:

1. Aerodynamic factors related to spins.

2. Flight situations where unintentional spins may occur.

3. Procedures for recovery from unintentional spins.

IX. AREA OF OPERATION: EMERGENCY OPERATIONS

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to emergency approach and landing procedures.
2. Analyzes the situation and selects an appropriate course of action.
3. Establishes and maintains the recommended best glide airspeed, ±10 knots.
4. Selects a suitable landing area.
5. Plans and follows a flight pattern to the selected landing area considering altitude, wind, terrain, and obstructions.
6. Prepares for landing, or go-around, as specified by the examiner.
7. Follows the appropriate checklist.

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to systems and equipment malfunctions appropriate to the aeroplane provided for the practical test.
2. Analyzes the situation and takes appropriate action for simulated emergencies appropriate to the aeroplane provided for the practical test for at least five (5) of the following:
   a. partial or complete power loss.
   b. engine roughness or overheat.
   c. carburettor or induction icing.
   d. loss of oil pressure.
   e. fuel starvation.
   f. electrical malfunction.
   g. vacuum/pressure, and associated flight instruments malfunction.
   h. pitot/static.

i. landing gear or flap malfunction.

j. inoperative trim.

k. inadvertent door or window opening.

l. structural icing.

m. smoke/fire/engine compartment fire.

n. any other emergency appropriate to the aeroplane.

3. Follows the appropriate checklist or procedure.

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

Objective: To determine that the applicant:

Exhibits knowledge of the elements related to emergency equipment and survival gear appropriate to the aeroplane and environment encountered during flight. Identifies appropriate equipment that should be aboard the **aeroplane.**

X. AREA OF OPERATION: HIGH ALTITUDE OPERATIONS

A. TASK: SUPPLEMENTAL OXYGEN (ASEL and ASES)

Objective: To determine that the applicant exhibits knowledge of the elements related to supplemental oxygen by explaining:

1. Supplemental oxygen requirements for flight crew and passengers when operating non-pressurized aeroplanes.

2. Identification and differences between "aviators' breathing oxygen" and other types.

3. Operational characteristics of continuous flow, demand, and pressure-demand oxygen systems.

B. TASK: PRESSURIZATION (ASEL and ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to pressurization by explaining-

a. fundamental concept of cabin pressurization.

b. supplemental oxygen requirements when operating aeroplanes with pressurized cabins.

c. physiological hazards associated with high altitude flight and decompression.

NOTE: Element 2 applies only if the aeroplane provided for the practical test is equipped for pressurized flight operations.

2. Operates the pressurization system properly, and reacts appropriately to simulated pressurization malfunctions.

XI. AREA OF OPERATION: POSTFLIGHT PROCEDURES

NOTE: The examiner shall select TASK A and for ASES applicants at least one other TASK.

A. TASK: AFTER LANDING, PARKING, AND SECURING (ASEL and ASES)

Objective:To determine that the applicant:

1. Exhibits knowledge of the elements related to after landing, parking and securing procedures.
2. Maintains directional control after touchdown while decelerating to an appropriate speed.
3. Observes runway hold lines and other surface control markings and lighting.
4. Parks in an appropriate area, considering the safety of nearby persons and property.
5. Follows the appropriate procedure for engine shutdown.
6. Completes the appropriate checklist.
7. Conducts an appropriate postflight inspection and secures the aircraft.

B. TASK: ANCHORING (ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to anchoring.
2. Selects a suitable area for anchoring, considering seaplane movement, water depth, tide, wind, and weather changes.
3. Uses an adequate number of anchors and lines of sufficient strength and length to ensure the seaplane's security.

C. TASK: DOCKING AND MOORING (ASES) Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to docking and mooring.
2. Approaches the dock or mooring buoy in the proper direction considering speed, hazards, wind, and water current.

3. Ensures seaplane security.

D. TASK: RAMPING/BEACHING (ASES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to ramping/beaching.

2. Approaches the ramp/beach considering persons and property, in the proper attitude and direction, at a safe speed, considering water depth, tide, current and wind.

3. Ramps/beaches and secures the seaplane in a manner that will protect it from the harmful effect of wind, waves, and changes in water level.

CHAPTER 4: COMMERCIAL PILOT LICENCE (CPL) MULTI-ENGINE LAND AND MULTI ENGINE SEA

Additional Rating Tables

a. Multi Engine Land

Addition of an Aeroplane Multiengine Land Rating to an existing Commercial Pilot Licence								
Required TASKs are indicated by either the TASK letter(s) that apply(s) or an indication that all or none of the TASKs must be tested based on the notes in each AREA OF OPERATION.								
COMMERCIAL PILOT RATING (S) HELD								
AREAS OF OPER-ATION	**ASEL**	**ASES**	**AMES**	**RH**	**RG**	**Glider**	**Balloon**	**Airship**
I	F,G,H	F,G,H	F,G	F,G,H	F,G,H	F,G,H	F,G,H	F,G,H
II	ALL	ALL	D	ALL	ALL	ALL	ALL	ALL
III	NONE	C	C	B,C	NONE	B,C	B,C	B,C
IV	A,B,C,D	A,B,C, D	A,B,C,D	A,B,C,D	A,B,C,D ,I	A,B,C,D ,I	A,B,C,D ,I	A,B,C,D ,I
V	ALL	ALL	NONE	ALL	ALL	ALL	ALL	ALL
VI	NONE	NONE	NONE	NONE	NONE	ALL	ALL	NONE
VII	ALL	ALL	NONE	ALL	ALL	ALL	ALL	ALL
VIII	ALL	ALL	B,D,E	ALL	ALL	ALL	ALL	ALL
IX	NONE	NONE	NONE	ALL	ALL	ALL	ALL	ALL
X	ALL	ALL	NONE	ALL	ALL	ALL	ALL	ALL
XI	NONE	A	A	A	A	A	A	A

b. Multi Engine Sea

Addition of an Aeroplane Multiengine Sea Rating to an existing Commercial Pilot Licence								
Required TASKs are indicated by either the TASK letter(s) that apply(s) or an indication that all or none of the TASKs must be tested based on the notes in each AREA OF OPERATION.								
COMMERCIAL PILOT RATING (S) HELD								
AREAS OF OPER-ATION	**AMEL**	**ASEL**	**ASES**	**RH**	**RG**	**Glider**	**Balloon**	**Airship**
I	F,G,I, J	F,G,H,I, J	F,G,H	F,G,H,I, J	F,G,H,I, J	F,G,H,I, J	F,G,H,I, J	F,G,H,I, J
II	E	ALL	ALL	ALL	ALL	ALL	ALL	ALL
III	C	C	NONE	B,C	C	B,C	B,C	B,C
IV	A,B,C ,D ,E,F, G,	A,B,C,D ,E,FF,G, H	A,B,C,D ,E,F,G, H	ALL	ALL	ALL	ALL	ALL
V	NON E	ALL	ALL	ALL	ALL	ALL	ALL	ALL
VI	NON E	NONE	NONE	NONE	NONE	ALL	ALL	NONE
VII	NON E	ALL	ALL	ALL	ALL	ALL	ALL	ALL
VIII	B,D,E	ALL	ALL	ALL	ALL	ALL	ALL	ALL
Ix	NON E	NONE	NONE	ALL	ALL	ALL	ALL	ALL
X	NON E	ALL	ALL	ALL	ALL	ALL	ALL	ALL
XI	B,C,D	B,C,D	NONE	ALL	B,C,D	ALL	ALL	ALL

I. AREA OF OPERATION: PREFLIGHT PREPARATION

NOTE: The examiner shall develop a scenario based on real time weather to evaluate TASKs C and D.

A. TASK: CERTIFICATES AND DOCUMENTS (AMEL and AMES)

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

1. Explaining-
    a. commercial pilot licence privileges limitations and recent flight experience requirements.
    b. medical certificate class and duration.
    c. pilot logbook or flight records.
2. Locating and explaining-
    a. airworthiness and registration certificates.
    b. operating limitations, placards, instrument markings, and POH/AFM.
    c. mass and balance data and equipment list.

B. TASK: AIRWORTHINESS REQUIREMENTS (AMEL and AMES)

Objective: To determine that the applicant exhibits knowledge of the elements related to airworthiness requirements by:

1. Explaining-
    a. required instruments and equipment for day/night VFR.
    b. procedures and limitations for determining airworthiness of the aeroplane
    c. with inoperative instruments and equipment with and without an MEL.
    d. requirements and procedures for obtaining a special flight permit.
2. Locating and explaining-
    a. airworthiness directives.
    b. compliance records.
    c. maintenance/inspection requirements.

d. appropriate record keeping.

C. TASK: WEATHER INFORMATION (AMEL and AMES) Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to weather information by analyzing weather reports, charts, and forecasts from various sources with emphasis on-

   a. METAR, TAF, and FA.

   b. surface analysis chart.

   c. radar summary chart.

   d. winds and temperature aloft chart.

   e. significant weather prognostic charts.

   f. convective outlook chart.

   g. AWOS, ASOS, and ATIS reports.

2. Makes a competent "go/no-go" decision based on available weather information.

D. TASK: CROSS-COUNTRY FLIGHT PLANNING (AMEL and AMES) Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to cross-country flight planning by presenting and explaining a pre-planned VFR cross-country flight, as previously assigned by the examiner. On the day of the practical test, the final flight plan shall be to the first fuel stop, based on maximum allowable passengers, baggage and/or cargo loads using real time weather.

2. Uses appropriate and current aeronautical charts.

3. Properly identifies airspace, obstructions, and terrain features.

4. Selects easily identifiable en route checkpoints.

5. Selects most favourable altitudes considering weather conditions and equipment capabilities.

6. Computes headings, flight time, and fuel requirements.

7. Selects appropriate navigation system/facilities and communication frequencies.

8. Applies pertinent information from NOTAMs, A/FD, and other flight publications.

9. Completes a navigation log and simulates filing a VFR flight plan.

E. TASK: NATIONAL AIRSPACE SYSTEM (AMEL and AMES)

Objective: To determine that the applicant exhibits knowledge of the elements related to the National Airspace System by explaining:

1. Basic VFR weather minimums-for all classes of airspace.
2. Airspace classes-their operating rules, pilot licences, 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 and other airspace areas.

F. TASK: PERFORMANCE AND LIMITATIONS (AMEL and MES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to performance and limitations by explaining the use of charts, tables, and data to determine performance and the adverse effects of exceeding limitations.
2. Computes mass and balance. Determines if the computed mass and centre of gravity is within the aeroplane's operating limitations and if the mass and centre of gravity will remain within limits during all phases of flight.
3. Demonstrates use of the appropriate performance charts, tables, and data.
4. Describes the effects of atmospheric conditions on the aeroplane's performance.

G. TASK: OPERATION OF SYSTEMS (AMEL and AMES)

Objective: To determine that the applicant exhibits knowledge of the elements related to the operation of systems on the aeroplane provided for the practical test, by explaining at least five (5) of the following systems:

1. Primary flight 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 flight instruments.
10. Environmental.
11. De-icing and anti-icing.

H.TASK: PRINCIPLES OF FLIGHT-ENGINE INOPERATIVE (AMEL and AMES)

Objective: To determine that the applicant exhibits knowledge of the elements related to engine inoperative principles of flight by explaining the:

1. meaning of the term "critical engine."
2. effects of density altitude on the VMC demonstration.
3. effects of aeroplane mass and centre of gravity on control.
4. effects of angle of bank 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
9. coordination of controls.
10. loss of directional control recovery procedure.
11. engine failure during takeoff including planning, decisions, and single-engine operations.

I. TASK: WATER AND SEAPLANE CHARACTERISTICS (AMES)

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

1. The characteristics of a water surface as affected by features, such as-size and location.

2. protected and unprotected areas. surface wind.

3. direction and strength of water current. floating and partially submerged debris. sandbars, islands, and shoals.

4. vessel traffic and wakes.

5. other features peculiar to the area.

6. Float and hull construction, and their effect on seaplane performance.

7. Causes of porpoising and skipping, and the pilot action required to prevent or correct these occurrences.

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

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

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

2. Operating restrictions at various bases.

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

4. Marine navigation aids, such as buoys, beacons, lights, and sound signals.

K. TASK: AEROMEDICAL FACTORS (AMEL and AMES)

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

1. The symptoms, causes, effects, and corrective actions of at least four (4) of the following-

    a. hypoxia.

    b. hyperventilation.

    c. middle ear and sinus problems.

    d. spatial disorientation.

    e. motion sickness.

    f. carbon monoxide poisoning.

    g. stress and fatigue.

h. dehydration.

2. The effects of alcohol, drugs, and over-the-counter medications.

3. The effects of excess nitrogen during scuba dives upon a pilot or passenger in flight.

II. AREA OF OPERATION: PREFLIGHT PROCEDURES

A. TASK: PREFLIGHT INSPECTION (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to preflight inspection. This shall include which items must be inspected, the reasons for checking each item, and how to detect possible defects.

2. Inspects the aeroplane with reference to an appropriate checklist.

3. Verifies that the aeroplane is in condition for safe flight.

B. TASK: COCKPIT MANAGEMENT (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to cockpit management procedures.

2. Ensures all loose items in the cockpit and cabin are secured.

3. Organizes material and equipment in an efficient manner so they are readily available.

4. Briefs occupants on the use of safety belts, shoulder harnesses, doors, and emergency procedures.

C. TASK: ENGINE STARTING (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to recommended engine starting procedures. This shall include the use of an external power source, and starting under various atmospheric conditions.

2. Positions the aeroplane properly considering structures, surface conditions, other aircraft, and the safety of nearby persons and property.

3. Utilizes the appropriate checklist for starting procedure.

D.TASK: TAXIING (AMEL)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to safe taxi procedures.
2. Performs a brake check immediately after the aeroplane begins moving.
3. Positions flight controls properly for the existing wind conditions.
4. Controls direction and speed without excessive use of brakes.
5. Complies with aerodrome/taxiway markings, signals, ATC clearances, and instructions.
6. Taxies so as to avoid other aircraft and hazards.

E. TASK: TAXIING AND SAILING (AMES) Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to water taxi and sailing procedures.
2. Positions the flight controls properly for the existing wind conditions.
3. Plans and follows the most favourable course while taxi or sailing considering wind, water current, water conditions and maritime regulations.
4. Uses the appropriate idle, plow, or step taxi technique.
5. Uses flight controls, flaps, doors, water rudder, and power correctly so as to follow the desired course while sailing.
6. Prevents and corrects for porpoising and skipping.
7. Avoids other aircraft, vessels, and hazards.
8. Complies with seaplane base signs, signals, and clearances.

F. TASK: BEFORE TAKEOFF CHECK (AMEL and AMES) Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to the before takeoff check. This shall include the reasons for checking each item and how to detect malfunctions.
2. Positions the aeroplane properly considering other aircraft/vessels, wind and surface conditions.
3. Divides attention inside and outside the cockpit.
4. Ensures the engine temperatures and pressure are suitable for run-up and takeoff.
5. Accomplishes the before takeoff checklist and ensures the aeroplane is in safe operating condition.
6. Reviews takeoff performance airspeeds, takeoff distances, departures and emergency procedures.

7. Avoids runway incursion and/or ensures no conflict with traffic prior to taxiing into takeoff position.

II. AREA OF OPERATION: AERODROME AND SEAPLANEBASE OPERATIONS

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to radio communications and ATC light signals.
2. Selects appropriate frequencies.
3. Transmits using recommended phraseology.
4. Acknowledges radio communications and complies with instructions.

B. TASK: TRAFFIC PATTERNS/CIRCUTS (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to traffic patterns. This shall include procedures at aerodromes with and without operating control towers, prevention of runway incursions, collision avoidance, wake turbulence avoidance, and wind shear.
2. Complies with proper traffic pattern procedures.
3. Maintains proper spacing from other aircraft.
4. Corrects for wind-drift to maintain proper ground track.
5. Maintains orientation with runway/landing area in use.
6. Maintains traffic pattern altitude ±100 feet (30 meters), and appropriate airspeed ± 10 knots.

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to aerodrome/seaplane base, runway, and taxiway operations with emphasis on runway incursion avoidance.
2. Properly identifies and interprets aerodrome/seaplane base, runway, and taxiway signs, markings, and lighting.

V. AREA OF OPERATION: TAKEOFFS, LANDINGS, AND GO-ABOUNDS

A. TASK: NORMAL AND CROSSWIND TAKEOFF AND CLIMB (AMEL and AMES)

NOTE: If a crosswind condition does not exist, the applicant's knowledge of crosswind elements shall be evaluated through oral testing.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to normal and crosswind takeoff, climb operations, and rejected takeoff procedures.
2. Positions the flight controls for the existing wind conditions.
3. Clears the area, taxies onto the takeoff surface and aligns the aeroplane on the runway centre/takeoff path.
4. Retracts the water rudders as appropriate, (AMES) advances the throttles smoothly to takeoff power.
5. Establishes and maintains the most efficient planning/lift off attitude and corrects for porpoising and skipping (AMES).
6. Lifts off at the recommended airspeed and accelerates to Vy.
7. Establishes a pitch attitude that will maintain Vy ±5 knots.
8. Retracts the landing gear, if appropriate, and flaps after a positive rate of climb is established.
9. Maintains takeoff power and Vy ±5 knots to a safe manoeuvring altitude.
10. Maintains directional control, proper wind-drift correction throughout the takeoff and climb.
11. Complies with noise abatement procedures.
12. Completes appropriate checklists.

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

NOTE: If a crosswind condition does not exist, the applicant's knowledge of the crosswind elements shall be evaluated through oral testing.

1. Exhibits knowledge of the elements related to normal and crosswind approach and landing.
2. Adequately surveys the intended landing area (AMES).
3. Considers the wind conditions, landing surface, obstructions, and selects a suitable touchdown point.

4. Establishes the recommended approach and landing configuration and airspeed and adjusts pitch attitude and power as required.

5. Maintains a stabilized approach and recommended airspeed, or in its absence, not more than 1.3 VSO, ±5 knots, with wind gust factor applied.

6. Makes smooth, timely, and correct control application during the roundout and touchdown.

7. Contacts the water at the proper pitch attitude (AMES).

8. Touches down smoothly at approximate stalling speed (AMEL).

9. Touches down at or within 200 feet (60 meters) beyond a specified point, with no drift, and with the aeroplane's longitudinal axis aligned with and over the runway centre/landing path.

10. Maintains crosswind correction and directional control throughout the approach and landing sequence.

11. Completes appropriate checklist.

C. TASK: SHORT-FIELD TAKEOFF (CONFINED AREA-AMES) AND MAXIMUM PREFORMANCE CLIMB (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to a short-field confined area (AMES) takeoff and maximum performance climb.

2. Positions the flight controls for the existing wind conditions, sets flaps as recommended.

3. Clears the area; taxies into takeoff position utilizing maximum available takeoff area and aligns the aeroplane on the runway centre/takeoff path.

4. Selects an appropriate take-off path for the existing conditions (AMES).

5. Applies brakes (if appropriate) while advancing the throttles smoothly to takeoff power.

6. Establishes and maintains the most efficient planning/lift off attitude and corrects for porpoising and skipping (AMES).

7. Lifts off at the recommended airspeed, and accelerates to recommended obstacle clearance airspeed, or V <.

8. Establishes a pitch attitude that will maintain the recommended obstacle clearance airspeed, or V <, +5/-0 knots, until the obstacle is cleared, or until the aeroplane is

9. 50 feet (20 meters) above the surface.

10. After clearing the obstacle, establishes the pitch attitude for Vy, accelerates to Vy, and maintains Vy, ±5 knots, during the climb.

11. Retracts the landing gear, if appropriate, and flaps after clear of any obstacles or as recommended by manufacturer.

12. Maintains takeoff power and Vy ±5 knots to a safe manoeuvring altitude.

13. Maintains directional control and proper wind-drift correction throughout the takeoff and climb.

14. Completes appropriate checklist.

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to a short-field (confined area AMES) approach and landing.

2. Adequately surveys the intended landing area (AMES).

3. Considers the wind conditions, landing surface, obstructions, and selects the most suitable touchdown point.

4. Establishes the recommended approach and landing configuration and airspeed; adjusts pitch attitude and power as required.

5. Maintains a stabilized approach and recommended approach airspeed, or in its absence, not more than 1.3 Vso, ±5 knots, with wind gust factor applied.

6. Makes smooth, timely, and correct control application during the roundout and touchdown.

7. Selects the proper landing path, contacts the water at the minimum safe airspeed with the proper pitch attitude for the surface conditions (AMES).

8. Touches down smoothly at minimum control airspeed (AMEL).

9. Touches down at or within 100 feet (30 meters) beyond a specified point, with no side drift, minimum float, and with the aeroplane's longitudinal axis aligned with and over the runway centre/landing path.

10. Maintains crosswind correction and directional control throughout the approach and landing sequence.

11. Applies brakes (AMEL) or elevator control (AMES), as necessary, to stop in the shortest distance consistent with safety.

12. Completes appropriate checklist.

E. TASK: GLASSY WATER TAKEOFF AND CLIMB (AMES)

NOTE: If a glassy water condition does not exist, the applicant shall be evaluated by simulating the TASK.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to glassy water takeoff and climb.

2. Positions the flight controls and flaps for the existing conditions.

3. Clears the area; selects an appropriate takeoff path considering surface hazards and/or vessels and surface conditions.

4. Retracts the water rudders as appropriate; advances the throttle smoothly to takeoff power.

5. Establishes and maintains an appropriate planning attitude, directional control, and corrects for porpoising, skipping, and increases in water drag.

6. Utilizes appropriate techniques to lift seaplane from the water considering surface conditions.

7. Establishes proper attitude/airspeed, and accelerates to Vy, ± 5 knots during the climb.

8. Retracts the landing gear, if appropriate, and flaps after a positive rate of climb is established.

9. Maintains takeoff power and Vy ±5 knots to a safe manoeuvring altitude.

10. Maintains directional control and proper wind-drift correction throughout takeoff and climb.

11. Completes the appropriate checklist.

F. TASK: GLASSY WATER APPROACH AND LANDING (AMES)

NOTE: If a glassy water condition does not exist, the applicant shall be evaluated by simulating the TASK.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to glassy water approach and landing.

2. Adequately surveys the intended landing area.

3. Considers the wind conditions, water depth, hazards, surrounding terrain, and other watercraft.

4. Selects the most suitable approach path and touchdown area.

5. Establishes the recommended approach and landing configuration and airspeed, and adjusts pitch attitude and power as required.

6. Maintains a stabilized approach and the recommended approach airspeed, ± 5 knots and maintains a touchdown pitch attitude and descent rate from the last altitude reference until touchdown.

7. Makes smooth, timely, and correct power and control adjustments to maintain proper pitch attitude and rate of descent to touchdown.

8. Contacts the water in the proper pitch attitude, and slows to idle taxi speed.

9. Maintains crosswind correction and directional control throughout the approach and landing sequence.

10. Completes the appropriate checklist.

G. TASK: ROUGH WATER TAKEOFF AND CLIMB (AMES)

NOTE: If a rough water condition does not exist, the applicant shall be evaluated by simulating the TASK.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to rough water takeoff and climb.

2. Positions the flight controls and flaps for the existing conditions.

3. Clears the area; selects an appropriate takeoff path considering wind, swells surface hazards, and/or vessels.

4. Retracts the water rudders as appropriate; advances the throttle smoothly to takeoff power.

5. Establishes and maintains an appropriate planning attitude, directional control, and corrects for porpoising, skipping, or excessive bouncing.

6. Lifts off at minimum airspeed and accelerates to Vy, ± 5 knots before leaving ground effect.

7. Retracts the landing gear, if appropriate, and flaps after a positive rate of climb is established.

8. Maintains takeoff power and Vy ±5 knots to a safe manoeuvring altitude.

9. Maintains directional control and proper wind-drift correction throughout takeoff and climb.

10. Completes the appropriate checklist.

H. TASK: ROUGH WATER APPROACH AND LANDING (AMES)

NOTE: If a rough water condition does not exist, the applicant shall be evaluated by simulating the TASK.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to rough water approach and landing.

2. Adequately surveys the intended landing area.

3. Considers the wind conditions, water, depth, hazards, surrounding terrain, and other watercraft.

4. Selects the most suitable approach path, and touchdown area.

5. Establishes the recommended approach and landing configuration and airspeed, and adjusts pitch attitude and power as required.

6. Maintains a stabilized approach and the recommended approach airspeed, or in its absence not more than 1.3 Vso ± 5 knots with wind gust factor applied.

7. Makes smooth, timely, and correct power and control application during the roundout and touch down.

8. Contacts the water in the proper pitch attitude, and at the proper airspeed, considering the type of rough water.

9. Maintains crosswind correction and directional control throughout the approach and landing sequence.

10. Completes the appropriate checklist.

I.TASK. GO-AROUND/REJECTED LANDING (AMEL and AMES) Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to a go-around/rejected landing.

2. Makes a timely decision to discontinue the approach to landing.

3. Applies takeoff power immediately and transitions to climb pitch attitude for Vy and maintains Vy ±5 knots.

4. Retracts flaps, as appropriate.

5. Retracts the landing gear if appropriate after a positive rate of climb is established.

6. Manoeuvres to the side of runway/landing area to clear and avoid conflicting traffic.

7. Maintains takeoff power and Vy ±5 knots to a safe manoeuvring altitude.

8. Maintains directional control and proper wind-drift correction throughout the climb.

9. Completes the appropriate checklist.

V. AREA OF OPERATION: PERFORMANCE MANOEUVRE

A. TASK: STEEP TURNS (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to steep turns.

2. Establishes the manufacturer's recommended airspeed or if one is not stated, a safe airspeed not to exceed VA.

3. Rolls into a coordinated 360° steep turn with at least a 50° bank, followed by a 360 ° steep turn in the opposite direction.

4. Divides attention between aeroplane control and orientation.

5. Maintains the entry altitude, ±100 feet (30 meters), airspeed, ±10 knots, bank, ±5°; and rolls out on the entry heading, ±10°.

VI. AREA OF OPERATION: NAVIGATION

A. TASK: PILOTAGE AND DEAD RECKONING (AMEL and AMES) Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to pilotage and dead reckoning.

2. Follows the preplanned course by reference to landmarks.

3. Identifies landmarks by relating surface features to chart symbols.

4. Navigates by means of precomputed headings, groundspeed, and elapsed time.

5. Corrects for and records differences between preflight groundspeed and heading calculations and those determined en route.

6. Verifies the aeroplane's position within two (2) nautical miles of flight planned route.

7. Arrives at the en route checkpoints within three (3) minutes of the initial or revised ETA and provides a destination estimate.

8. Maintains appropriate altitude, ±100 feet (30 meters), and heading, ±10°.

B. TASK: NAVIGATION SYSTEMS AND RADAR SERVICES (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to navigation and radar services.

2. Demonstrates the ability to use an airborne electronic navigation system.

3. Locates the aeroplane’s position using the navigation system.

4. Intercepts and tracks a given course, radial, or bearing, as appropriate.

5. Recognizes and describes the indication of station passage, if appropriate.

6. Recognizes signal loss and takes appropriate action.

7. Uses proper communication procedures when utilizing radar services.

8. Maintains the appropriate altitude, ±10°.

C. TASK: DIVERSION (AMEL and AMES) Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to diversion.
2. Selects an appropriate alternate aerodrome and route.
3. Makes an accurate estimate of heading, groundspeed, arrival time, and fuel consumption to the alternate aerodrome.
4. Maintains the appropriate altitude, ±100 feet (30 meters), and heading, ±10°.

D. TASK: LOST PROCEDURES (AMEL and AMES) Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to lost procedures.
2. Selects an appropriate course of action.
3. Maintains an appropriate heading and climbs, if necessary.
4. Identifies prominent landmarks.
5. Uses navigation systems/facilities and/or contacts an ATC facility for assistance, as appropriate.

VI. AREA OF OPERATION: SLOW FLIGHT AND STALLS

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to manoeuvring during slow flight.
2. Selects an entry altitude that will allow the task to be completed no lower than 3,000 feet (920 meters) AGL.
3. Establishes and maintains an airspeed at which any further increase in angle of attack, increase in load factor, or reduction in power, would result in an immediate stall.
4. Accomplishes coordinated straight-and-level flight, turns, climbs, and descents with landing gear and flap configurations specified by the examiner.
5. Divides attention between aeroplane control and orientation.
6. Maintains the specified altitude, ±50 feet (15 meters); specified heading, ±10°; airspeed +5/-0 knots, and specified angle of bank, ±5°.

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

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to power-off stalls.
2. Selects an entry altitude that allows the task to be completed no lower than 3,000 feet (460 meters) AGL.
3. Establishes a stabilized descent in the approach or landing configuration, as specified by the examiner.
4. Transitions smoothly from the approach or landing attitude to a pitch attitude that will induce a stall.
5. Maintains a specified heading ±10°, in straight flight; maintains a specified angle of bank, not to exceed 20°, ±50, in turning flight while inducing the stall.
6. Recognizes and recovers promptly as the stall occurs by simultaneously reducing the angle of attack, increasing power to maximum allowable, and levelling the wings to return to a straight-and-level flight attitude with a minimum loss of altitude appropriate for the aeroplane.
7. Retracts the flaps to the recommended setting, retracts the landing gear, if retractable, after a positive rate of climb is established.
8. Accelerates to VX or Vy speed before the final flap retraction; returns to the altitude, heading, and airspeed specified by the examiner.

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

NOTE: In some high performance aeroplanes, the power setting may have to be reduced below the practical test standards guideline power setting to prevent excessively high pitch altitudes (greater than 30° nose up).

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to power-on stalls.
2. Selects an entry altitude that allows the task to be completed no lower than 3,000 feet (920 meters) AGL.
3. Establishes the takeoff or departure configuration. Sets power to no less than 65 percent available power.
4. Transitions smoothly from the takeoff or departure attitude to a pitch attitude that will induce a stall.
5. Maintains a specified heading ±5°, in straight flight; maintains a specified angle of bank, not to exceed a 20°, ±10° in turning flight, while inducing the stall.

6. Recognizes and recovers promptly as the stall occurs by simultaneously reducing the angle of attack, increasing power to maximum allowable, and levelling the wings to return to a straight-and-level flight attitude, with a minimum loss of altitude appropriate for the aeroplane.

7. Retracts flaps to the recommended setting, retracts the landing gear if retractable, after a positive rate of climb is established.

8. Accelerates to VX or Vy speed before the final flap retraction; returns to the altitude, heading, and airspeed specified by the examiner.

D. TASK: SPIN AWARENESS (AMEL and AMES)

Objective: To determine that the applicant exhibits knowledge of the elements related to spin awareness by explaining:

1. Aerodynamic factors related to spins.

2. Flight situations where unintentional spins may occur.

3. Procedures for recovery from unintentional spins.

VIII. AREA OF OPERATION: EMERGENCY PERATIONS

NOTE: Examiners shall select an entry altitude that will allow the single engine demonstrations TASK to be completed no lower than 3,000 feet (920 meters) AGL or the manufacturer's recommended altitude, whichever is higher. At altitudes lower than 3,000 feet (920 meters) AGL, engine failure shall be simulated by reducing throttle to idle and then establishing zero thrust.

A. TASK: EMERGENCY DESCENT (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to an emergency descent.

2. Recognizes situations, such as depressurization, cockpit smoke and/or fire that require an emergency descent.

3. Establishes the appropriate airspeed and configuration for the emergency descent.

4. Exhibits orientation, division of attention, and proper planning.

5. Maintains positive load factors during the descent.

6. Completes appropriate checklists.

B. TASK: ENGINE FAILURE DURING TAKEOFF BEFORE VMC (SIMULATED) (AMEL and AMES)

NOTE: Engine failure (simulated) shall be accomplished before reaching 50 percent of the calculated VMC.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to the procedure used for engine failure during takeoff prior to reaching VMC,
2. Closes the throttles smoothly and promptly when simulated engine failure occurs.

3. Maintains directional control and applies brakes (AMEL) or flight controls (AMES), as necessary. the applicant:

4. Exhibits knowledge of the elements related to the procedure used for engine failure after lift-off.

5. Recognizes a simulated engine failure promptly, maintains control, and utilizes appropriate emergency procedures.

6. Reduces drag, identifies and verifies the inoperative engine after simulated engine failure.

7. Simulates feathering the propeller on the inoperative engine. Examiner shall then establish zero-thrust on the inoperative engine.

8. Establishes VYSE; If obstructions are present, establishes VxsE or VMC +5 knots, whichever is greater, until obstructions are cleared. Then transitions to VYSE.

9. Banks toward the operating engine as required for best performance.

10. Monitors operating engine and makes adjustments, as necessary.

11. Recognizes the aeroplane's performance capabilities. If a climb is not possible at VYSE, maintain VYSE and return to the departure aerodrome for landing, or initiates an approach to the most suitable landing area available.

12. Secures the (simulated) inoperative engine.

13. Maintains heading, ±10°, and airspeed, ±5 knots.

14. Completes appropriate emergency checklist.

D. TASK: APPROACH AND LANDING WITH AN INOPERATIVE ENGINE (SIMULATED) (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to an approach and landing with an engine inoperative to include engine failure on final approach.

2. Recognizes engine failure and takes appropriate action, maintains control, and utilizes recommended emergency procedures.

3. Banks toward the operating engine, as required, for best performance.

4. Monitors the operating engine and makes adjustments as necessary.

5. Maintains the recommended approach airspeed ±5 knots, and landing configuration with a stabilized approach, until landing is assured.

6. Makes smooth, timely and correct control applications during roundout and touchdown.

7. Touches down on the first one-third of available runway, with no drift and the aeroplane's longitudinal axis aligned with and over the runway centre/landing path.

8. Maintains crosswind correction and directional control throughout the approach and landing sequence.

9. Completes appropriate checklists.

E. TASK: SYSTEMS AND EQUIPMENT MALFUNCTIONS (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to systems and equipment malfunctions appropriate to the aeroplane provided for the practical test.

2. Analyzes the situation and takes appropriate action for simulated emergencies appropriate to the aeroplane provided for the practical test for at least five (5) of the following-

   a. partial or complete power loss.

   b. engine roughness or overheat.

   c. carburettor or induction icing.

   d. loss of oil pressure.

   e. fuel starvation.

   f. electrical malfunction.

   g. vacuum/pressure, and associated flight instruments malfunction.

   h. pitot/static.

   i. landing gear or flap malfunction.

   j. inoperative trim.

   k. inadvertent door or window opening.

   l. structural icing.

   m. smoke/fire/engine compartment fire.

   n. any other emergency appropriate to the aeroplane.

3. Follows the appropriate checklist or procedure.

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

Objective: To determine that the applicant:

Exhibits knowledge of the elements related to emergency equipment and survival gear appropriate to the aeroplane and environment encountered during flight. Identifies appropriate equipment that should be aboard the aeroplane.

IX. AREA OF OPERATION: HIGH ALTITUDE OPERATIONS

A. TASK: SUPPLEMENTAL OXYGEN (AMEL and AMES)

Objective: To determine that the applicant exhibits knowledge of the elements related to supplemental oxygen by explaining:

1. Supplemental oxygen requirements for flight crew and passengers when operating non-pressurized aeroplanes.

2. Identification and differences between "aviators" breathing oxygen" and other types.

3. Operational characteristics of continuous flow, demand, and pressure-demand oxygen systems.

B.TASK: PRESSURIZATION (AMEL and AMES) Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to pressurization by explaining-

    a. fundamental concept of cabin pressurization.

    b. supplemental oxygen requirements when operating aeroplanes with pressurized cabins.

    c. physiological hazards associated with high altitude flight and decompression.

   NOTE: Element 2 applies only if the aeroplane provided for the practical test is equipped for pressurized flight operations.

2. Operates the pressurization system properly, and reacts appropriately to simulated pressurization malfunctions.

X. AREA OF OPERATION: MULTIENGINE OPERATIONS

NOTE: If the applicant is instrument rated, and has previously demonstrated instrument proficiency in a multiengine aeroplane or does not hold an instrument rating aeroplane, TASKs D and C need not be accomplished.

A. TASK: MANOEUVRING WITH ONE ENGINE INOPERATIVE (AMEL and AMES) REFERENCES: Commercial STS and POH/AFM.

NOTE: The feathering of one propeller shall be demonstrated in flight, in a multiengine aeroplane equipped with propellers which can be safely feathered and unfeathered. The manoeuvre shall be performed at altitudes and positions where safe landings on established aerodromes can be readily accomplished. In the event a propeller cannot be unfeathered during the practical test, it shall be treated as an emergency.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to manoeuvring with one engine inoperative.
2. Recognizes engine failure and maintains control.
3. Sets the engine controls, reduces drag, identifies and verifies the inoperative engine, and feathers appropriate propeller.
4. Establishes and maintains a bank toward the operating engine as required for best performance in straight and level flight.
5. Follows the prescribed checklists to verify procedures for securing the inoperative engine.
6. Monitors the operating engine and makes necessary adjustments.
7. Demonstrates coordinated flight with one engine inoperative (propeller feathered).
8. Restarts the inoperative engine using appropriate restart procedures.
9. Maintains altitude ±100 feet (30 meters) or minimum sink as appropriate and heading ±10°.
10. Completes the appropriate checklists.

B. TASK: VMC DEMONSTRATION (AMEL and AMES)

NOTE 1 An applicant seeking an aeroplane-multiengine land (AMEL) rating, "Limited to Centre Thrust, " is not required to be evaluated on this TASK.

NOTE 2 Aeroplanes with normally aspirated engines will lose power as altitude increases because of the reduced density of the air entering the induction system of the engine. This loss of power will result in a VMC lower than the stall speed at higher altitudes. Therefore, recovery should be made at the first indication of loss of directional control, stall warning, or buffet.

Do not perform this manoeuvre by increasing the pitch attitude to a high angle with both engines operating and then reducing power on the critical engine. This technique is hazardous and may result in loss of aeroplane control.

Objective:To determine that the applicant:

1. Exhibits knowledge of the elements related to VMC by explaining the causes of loss of directional control at airspeeds less than VMC, the factors affecting VMC, and safe recovery procedures.

2. Configures the aeroplane at VSSENYSE, as appropriate-

    a. Landing gear retracted.

    b. Flaps set for takeoff.

    c. Cowl flaps set for takeoff.

    d. Trim set for takeoff.

    e. Propellers set for high RPM.

    f. Power on critical engine reduced to idle.

    g. Power on operating engine set to takeoff or maximum available power.

3. Establishes a single-engine climb attitude with the airspeed at approximately 10 knots above VSSE or VYSE, as appropriate.

4. Establishes a bank toward the operating engine, as required for best performance and controllability.

5. Increases the pitch attitude slowly to reduce the airspeed at approximately 1knot per second while applying rudder pressure to maintain directional control until full rudder is applied.

6. Recognizes indications of loss of directional control, stall warning or buffet.

7. Recovers promptly by simultaneously reducing power sufficiently on the operation

8. engine while decreasing the angle of attack as necessary to regain airspeed and directional control. Recovery SHOULD NOT be attempted by increasing the power on the simulated failed engine.

9. Recovers within 20° of the entry heading.

10. Advances power smoothly on operating engine and accelerates to VXSENYSE, as appropriate, ± 5 knots, during the recovery.

C. TASK: ENGINE FAILURE DURING FLIGHT (By Reference to Instruments) (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements by explaining the procedures used during instrument flight with one engine inoperative.

2. Recognizes engine failure, sets the engine controls, reduces drag, identifies, and verifies the inoperative engine and simulates feathering appropriate engine propeller.

3. Establishes and maintains a bank toward the operating engine as required for best performance in straight and level.

4. Follows the prescribed checklists to verify procedures for securing the inoperative engine.

5. Monitors the operating engine and makes necessary adjustments.

6. Demonstrates coordinated flight with one engine inoperative.

7. Maintains altitude ±100 feet (30 meters), or minimum sink as appropriate and heading ±10°, bank ±5°, and levels off from climbs and descents within ± 100 feet (30 meters).

C. TASK: INSTRUMENT APPROACH-ONE ENGINE INOPERATIVE (By Reference to Instruments) (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements by explaining the procedures used during a published instrument approach with one engine inoperative.

2. Recognizes engine failure, sets the engine controls, reduces drag, identifies and verifies the inoperative engine, and simulates feathering appropriate engine propeller.

3. Establishes and maintains a bank toward the operating engine, as required, for best performance in straight and level.

4. Follows the prescribed checklists to verify procedures for securing the inoperative engine.

5. Monitors the operating engine and makes necessary adjustments.

6. Requests and receives an actual or a simulated ATC clearance for an instrument approach.

7. Follows the actual or a simulated ATC clearance for an instrument approach.

8. Maintains altitude within 100 feet (30 meters), the airspeed within ±10 knots if within the aircraft's capability, and heading ±10°.

9. Establishes a rate of descent that will ensure arrival at the MDA or DH/DA, with the aeroplane in a position from which a descent to a landing, on the intended runway can be made, either straight in or circling as appropriate.

10. On final approach segment, no more than three-quarter-scale deflection of the CDI/glide slope indicator. For RMI or ADF indicators, within 10° of the course.

11. Avoids loss of aircraft control, or attempted flight contrary to the engine-inoperative operating limitations of the aircraft.

12. Complies with the published criteria for the aircraft approach category when circling.

13. Completes landing and appropriate checklists.

XI. AREA OF OPERATION: POSTFLIGHT PROCEDURES

NOTE: The examiner shall select TASK A and for AMES applicants at least one other TASK.

A. TASK: AFTER LANDING, PARKING, AND SECURING (AMEL and AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to after landing, parking and securing procedures.
2. Maintains directional control after touchdown while decelerating to an appropriate speed.
3. Observes runway hold lines and other surface control markings and lighting.
4. Parks in an appropriate area, considering the safety of nearby persons and property.
5. Follows the appropriate procedure for engine shutdown.
6. Completes the appropriate checklist.
7. Conducts an appropriate postflight inspection and secures the aircraft.

B. TASK: ANCHORING (AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to anchoring.
2. Selects a suitable area for anchoring, considering seaplane movement, water depth, tide, wind, and weather changes.
3. Uses an adequate number of anchors and lines of sufficient strength and length to ensure the seaplane's security.

C. TASK: DOCKING AND MOORING (AMES) Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to docking and mooring.
2. Approaches the dock or mooring buoy in the proper direction considering speed, hazards, wind, and water current.
3. Ensures seaplane security.

D. TASK: RAMPING/BEACHING (AMES)

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to ramping/beaching.

2. Approaches the ramp/beach considering persons and property, in the proper attitude and direction, at a safe speed, considering water depth, tide, current, and wind.

3. Ramps/beaches and secures the seaplane in a manner that will protect it from the harmful effect of wind, waves, and changes in water level.

CHAPTER 5: AIRLINE TRANSPORT PILOT LICENCE (ATPL)

SECTION 1: PREFLIGHT PREPARATION

1. AREA OF OPERATION: PREFLIGHT PREPARATION

A. TASK: EQUIPMENT EXAMINATION

Objective: To determine that the applicant:

1. Exhibits adequate knowledge appropriate to the aeroplane; its systems and components; its normal, abnormal, and emergency procedures; and uses the correct terminology with regard to the following items-

   a. landing gear-indicators, float devices, brakes, antiskid, tires, nose-wheel steering, and shock absorbers.

   b. powerplant-controls and indications, induction system, carburetor and fuel injection, turbocharging, cooling, fire detection/protection, mounting points, turbine wheels, compressors, deicing, anti-icing, and other related components.

   c. propellers-type, controls, feathering/unfeathering, autofeather, negative torque sensing, synchronizing, and synchrophasing.

   d. fuel system-capacity; drains; pumps; controls; indicators; crossfeeding; transferring; jettison; fuel grade, color and additives; fueling and de-fueling procedures; and substitutions, if applicable.

   e. oil system-capacity, grade, quantities, and indicators.

   f. hydraulic system-capacity, pumps, pressure, reservoirs, grade, and regulators.

   g. electrical system-alternators, generators, battery, circuit breakers and protection devices, controls, indicators, and external and auxiliary power sources and ratings.

   h. environmental systems-heating, cooling, ventilation, oxygen and pressurization, controls, indicators, and regulating devices.

   i. avionics and communications-autopilot; flight director; Electronic Flight Indicating Systems (EFIS); Flight Management System(s) (FMS); Long Range Navigation (LORAN) systems; Doppler Radar; Inertial Navigation Systems (INS); Global Positioning System (GPS/DGPS/WGPS); VOR, NDB, ILS/MLS, RNAV systems and components; indicating devices; transponder; and emergency locator transmitter.

   j. ice protection-anti-ice, deice, pitot-static system protection, propeller, windshield, wing and tail surfaces.

k. crewmember and passenger equipment-oxygen system, survival gear

l. emergency exits, evacuation procedures and crew duties, and quick donning oxygen mask for crewmembers and passengers.

m. flight controls-ailerons, elevator(s), rudder(s), winglets, canards, control tabs, balance tabs, stabilizer, flaps, spoilers, leading edge flaps/slats and trim systems.

n. pitot-static system with associated instruments and the power source for the flight instruments.

2. Exhibits adequate knowledge of the contents of the POH or AFM with regard to the systems and components listed in paragraph 1 (above); the Minimum Equipment List (MEL), if appropriate; and the Operations Specifications, if applicable.

B. TASK: PERFORMANCE AND LIMITATIONS

Objective: To determine that the applicant:

1. Exhibits adequate knowledge of performance and limitations, including a thorough knowledge of the adverse effects of exceeding any limitation.

2. Demonstrates proficient use of (as appropriate to the aeroplane) performance charts, tables, graphs, or other data relating to items, such as-

a. accelerate-stop distance.

b. accelerate-go distance.

c. takeoff performance-all engines, engine(s) inoperative.

d. climb performance including segmented climb performance; with all engines

e. operating-with one or more engine(s) inoperative, and with other engine

f. malfunctions as may be appropriate.

g. service ceiling-all engines, engines(s) inoperative, including drift down, if appropriate.

h. cruise performance.

i. fuel consumption, range, and endurance.

j. descent performance.

k. land and hold short operations (LAHSO).

l. go-around from rejected landings.

m. other performance data (appropriate to the aeroplane).

3. Describes (as appropriate to the aeroplane) the airspeeds used during specific phases of flight.

4. Describes the effects of meteorological conditions upon performance characteristics and correctly applies these factors to a specific chart, table, graph, or other performance data.

5. Computes the center-of-gravity location for a specific load condition (as specified by the examiner), including adding, removing, or shifting weight.

6. Determines if the computed center-of-gravity is within the forward and aft centerof-gravity limits, and that lateral fuel balance is within limits for takeoff and landing.

7. Demonstrates good planning and knowledge of procedures in applying operational

8. factors affecting aeroplane performance.

SECTION 2: PREFLIGHT PROCEDURES, INFLIGHT MANOEUVERS, AND POSTFLIGHT PROCEDURES

I. AREA OF OPERATION: PREFLIGHT PROCEDURES

A. TASK: PREFLIGHT INSPECTION

NOTE: If a flight engineer (FE) is a required crewmember for a particular type aeroplane, the actual visual inspection may be waived. The actual visual inspection may be replaced by using an approved pictorial means that realistically portrays the location and detail of inspection items. On aeroplanes requiring an FE, an applicant must demonstrate adequate knowledge of the FE functions for the safe completion of the flight if the FE becomes ill or incapacitated during a flight.

Objective: To determine that the applicant:

1. Exhibits adequate knowledge of the preflight inspection procedures, while explaining briefly-

   a. the purpose of inspecting the items, which must be checked.

   b. how to detect possible defects.

   c. the corrective action to take.

2. Exhibits adequate knowledge of the operational status of the aeroplane by locating and explaining the significance and importance of related documents, such as-

   a. airworthiness and registration certificates.

   b. operating limitations, handbooks, and manuals.

   c. minimum equipment list (MEL) (if appropriate).

   d. weight and balance data.

e. maintenance requirements, tests, and appropriate records applicable to the proposed flight or operation; and maintenance that may be performed by the pilot or other designated crewmember.

3. Uses the approved checklist to inspect the aeroplane externally and internally.

4. Uses the challenge-and-response (or other approved) method with the other crewmember(s), where applicable, to accomplish the checklist procedures.

5. Verifies the aeroplane is safe for flight by emphasizing (as appropriate) the need to look at and explain the purpose of inspecting items, such as-

   a. powerplant, including controls and indicators.

   b. fuel quantity, grade, type, contamination safeguards, and servicing procedures.

   c. oil quantity, grade, and type.

   d. hydraulic fluid quantity, grade, type, and servicing procedures.

6. oxygen quantity, pressures, servicing procedures, and associated systems and equipment for crew and passengers.

   a. hull, landing gear, float devices, brakes, and steering system.

   b. tires for condition, inflation, and correct mounting, where applicable.

   c. fire protection/detection systems for proper operation, servicing, pressures, and discharge indications.

   d. pneumatic system pressures and servicing.

   e. ground environmental systems for proper servicing and operation.

   f. auxiliary power unit (APU) for servicing and operation.

   g. flight control systems including trim, spoilers, and leading/trailing edge.

   h. anti-ice, deice systems, servicing, and operation.

7. Coordinates with ground crew and ensures adequate clearance prior to moving any devices, such as door, hatches, and flight control surfaces.

8. Complies with the provisions of the appropriate Operations Specifications, if applicable, as they pertain to the particular aeroplane and operation.

9. Demonstrates proper operation of all applicable aeroplane systems.

10. Notes any discrepancies, determines if the aeroplane is airworthy and safe for flight, or takes the proper corrective action.

11. Checks the general area around the aeroplane for hazards to the safety of the aeroplane and personnel.

B. TASK: POWERPLANT START

Objective: To determine that the applicant:

1. Exhibits adequate knowledge of the correct powerplant start procedures including the use of an auxiliary power unit (APU) or external power source, starting under various atmospheric conditions, normal and abnormal starting limitations, and the proper action required in the event of a malfunction.

2. Ensures the ground safety procedures are followed during the before-start, start, and after-start phases.

3. Ensures the use of appropriate ground crew personnel during the start procedures.

4. Performs all items of the start procedures by systematically following the approved checklist items for the before-start, start, and after-start phases.

5. Demonstrates sound judgment and operating practices in those instances where specific instructions or checklist items are not published.

C. TASK: TAXIING

Objective: To determine that the applicant:

1. Exhibits adequate knowledge of safe taxi procedures (as appropriate to the aeroplane including push-back or power-back, as may be applicable).

2. Demonstrates proficiency by maintaining correct and positive aeroplane control. In aeroplanes equipped with float devices, this includes water taxiing, sailing, step taxi, approaching a buoy, and docking.

3. Maintains proper spacing on other aircraft, obstructions, and persons.

4. Accomplishes the applicable checklist items and performs recommended procedures.

5. Maintains desired track and speed.

6. Complies with instructions issued by ATC (or the examiner simulating ATC).

7. Observes runway hold lines, localizer and glide slope critical areas, buoys, beacons, and other surface control markings and lighting.

8. Maintains constant vigilance and aeroplane control during taxi operation to prevent runway incursion.

D. TASK: PRE-TAKEOFF CHECKS

Objective: To determine that the applicant:

1. Exhibits adequate knowledge of the pretakeoff checks by stating the reason for checking the items outlined on the approved checklist and explaining how to detect possible malfunctions.

2. Divides attention properly inside and outside cockpit.

3. Ensures that all systems are within their normal operating range prior to beginning, during the performance of, and at the completion of those checks required by the approved checklist.

4. Explains, as may be requested by the examiner, any normal or abnormal system- operating characteristic or limitation; and the corrective action for a specific malfunction.

5. Determines if the aeroplane is safe for the proposed flight or requires maintenance.

6. Determines the aeroplane's takeoff performance, considering such factors as wind, density altitude, weight, temperature, pressure altitude, and runway condition and length.

7. Determines airspeedsN-speeds and properly sets all instrument references, flight director and autopilot controls, and navigation and communications equipment.

8. Reviews procedures for emergency and abnormal situations, which may be encountered during takeoff, and states the corrective action required of the pilot in command and other concerned crewmembers.

9. Obtains and correctly interprets the takeoff and departure clearance as issued by ATC.

11. AREA OF OPERATION: TAKEOFF AND DEPARTURE PHASE

A. TASK: NORMAL AND CROSSWIND TAKEOFF

Objective: To determine that the applicant:

1. Exhibits adequate knowledge of normal and crosswind takeoffs and climbs including (as appropriate to the aeroplane) airspeeds, configurations, and emergency/ abnormal procedures.

2. Notes any surface conditions, obstructions, aircraft cleared for LAHSO, or other hazards that might hinder a safe takeoff.

3. Verifies and correctly applies correction for the existing wind component to the takeoff performance.

4. Completes required checks prior to starting takeoff to verify the expected powerplant performance. Performs all required pretakeoff checks as required by the appropriate checklist items.

5. Aligns the aeroplane on the runway centerline.

6. Applies the controls correctly to maintain longitudinal alignment on the centerline of the runway prior to initiating and during the takeoff.

7. Adjusts the powerplant controls as recommended by the CAA-approved guidance for the existing conditions.

8. Monitors powerplant controls, settings, and instruments during takeoff to ensure all predetermined parameters are maintained.

9. Adjusts the controls to attain the desired pitch attitude at the predetermined airspeedN- speed to attain the desired performance for the particular takeoff segment.

10. Performs the required pitch changes and, as appropriate, performs or calls for and verifies the accomplishment of, gear and flap retractions, power adjustments, and other required pilot-related activities at the required airspeedN-speeds within the tolerances established in the POH or AFM.

11. Uses the applicable noise abatement and wake turbulence avoidance procedures, as required.

12. Accomplishes or calls for and verifies the accomplishment of the appropriate checklist items.

13. Maintains the appropriate climb segment airspeedN-speeds.

14. Maintains the desired heading within ±5° and the desired airspeedN-speed within ±5 knots or the appropriate V-speed range.

B. TASK: INSTRUMENT TAKEOFF

Objective: To determine that the applicant:

1. Exhibits adequate knowledge of an instrument takeoff with instrument meteorological conditions simulated at or before reaching an altitude of 100 feet (30 meters) AGL. If accomplished in a flight simulator, visibility should be no greater than one-quarter (1/4) mile, or as specified by operator specifications.

2. Takes into account, prior to beginning the takeoff, operational factors which could affect the manoeuvre, such as Takeoff Warning Inhibit Systems or other aeroplane characteristics, runway length, surface conditions, wind, wake turbulence, obstructions, and other related factors that could adversely affect safety.

3. Accomplishes the appropriate checklist items to ensure that the aeroplane systems applicable to the instrument takeoff are operating properly.

4. Sets the applicable radios/flight instruments to the desired setting prior to initiating the takeoff.

5. Applies the controls correctly to maintain longitudinal alignment on the centerline of the runway prior to initiating and during the takeoff.

6. Transitions smoothly and accurately from visual meteorological conditions to actual or simulated instrument meteorological conditions.

7. Maintains the appropriate climb attitude.

8. Complies with the appropriate airspeedsN-speeds and climb segment airspeeds.

9. Maintains desired heading within ±5° and desired airspeeds within ±5 knots.

10. Complies with ATC clearances and instructions issued by ATC (or the examiner simulating ATC).

C. TASK: POWERPLANT FAILURE DURING TAKEOFF

NOTE: In a multiengine aeroplane with published VI, VR, and/or V2 speeds, the failure of the most critical powerplant should be simulated at a point:

1. after V, and prior to V2, if in the opinion of the examiner, it is appropriate under the prevailing conditions; or

2. as close as possible after VI when VI and V2 or VI and VR are identical.

In a multiengine aeroplane for which no VI, VR, or V2 speeds are published, the failure of the most critical powerplant should be simulated at a point after reaching a minimum of VSSE and, if accomplished in the aircraft, at an altitude not lower than 500 feet AGL.

Objective: To determine that the applicant:

1. Exhibits adequate knowledge of the procedures used during powerplant failure on takeoff, the appropriate reference airspeeds, and the specific pilot actions required.

2. Takes into account, prior to beginning the takeoff, operational factors which could affect the manoeuvre such as Takeoff Warning Inhibit Systems or other aeroplane characteristics, runway length, surface conditions, wind, wake turbulence, obstructions, and other related factors that could adversely affect safety.

3. Completes required checks prior to starting takeoff to verify the expected powerplant performance. Performs all required pretakeoff checks as required by the appropriate checklist items.

4. Aligns the aeroplane on the runway.

5. Applies the controls correctly to maintain longitudinal alignment on the centerline of the runway prior to initiating and during the takeoff.

6. Adjusts the powerplant controls as recommended by the CAA-approved guidance for the existing conditions.

7. Single-Engine Aeroplanes: Establishes a power-off descent approximately straight- ahead, if the powerplant failure occurs after becoming airborne.

8. Continues the takeoff (in a multiengine aeroplane) if the (simulated) powerplant failure occurs at a point where the aeroplane can continue to a specified airspeed and altitude at the end of the runway commensurate with the aeroplane's performance capabilities and operating limitations.

9. Maintains (in a multiengine aeroplane), after a simulated powerplant failure and after a climb has been established, the desired heading within ±5°, desired airspeed within ±5 knots, and, if appropriate for the aeroplane, establishes a bank of approximately 5°, or as recommended by the manufacturer, toward the operating powerplant

10. Maintains the aeroplane alignment with the heading appropriate for climb performance

11. and terrain clearance when powerplant failure occurs.

D. TASK: REJECTED TAKEOFF

Objective: To determine that the applicant understands when to reject or continue the takeoff and:

1. Exhibits adequate knowledge of the technique and procedure for accomplishing a rejected takeoff after powerplant/system(s) failure/warnings, including related safety factors.

2. Takes into account, prior to beginning the takeoff, operational factors that could affect the manoeuvre, such as Takeoff Warning Inhibit Systems or other aeroplane characteristics, runway length, surface conditions, wind, obstructions, and aircraft cleared for LAHSO that could affect takeoff performance and could adversely affect safety.

3. Aligns the aeroplane on the runway centerline.

4. Performs all required pretakeoff checks as required by the appropriate checklist items.

5. Adjusts the powerplant controls as recommended by the CAA-approved guidance for the existing conditions.
6. Applies the controls correctly to maintain longitudinal alignment on the centerline of the runway.

7. Aborts the takeoff if, in a single-engine aeroplane the powerplant failure occurs prior to becoming airborne, or in a multiengine aeroplane, the powerplant failure occurs at a point during the takeoff where the abort procedure can be initiated and the aeroplane can be safely stopped on the remaining runway/stopway. If a flight simulator is not used, the powerplant failure should be simulated before reaching 50 percent of VMC.

8. Reduces the power smoothly and promptly, if appropriate to the aeroplane, when powerplant failure is recognized.

9. Uses spoilers, prop reverse, thrust reverse, wheel brakes, and other drag/braking devices, as appropriate, maintaining positive control in such a manner as to bring the aeroplane to a safe stop. Accomplishes the appropriate powerplant failure or other procedures and/or checklists as set forth in the POH or AFM.

E. TASK: DEPARTURE PROCEDURES

Objective: To determine that the applicant:

1. In actual or simulated instrument conditions, exhibits adequate knowledge of DP's, En Route Low and High Altitude Charts, STARs, FMSP, and related piloUcontroller responsibilities.

2. Uses the current and appropriate navigation publications for the proposed flight.

3. Selects and uses the appropriate communications frequencies, and selects and identifies the navigation aids associated with the proposed flight.

4. Performs the appropriate checklist items.

5. Establishes communications with ATC, using proper phraseology.

6. Complies, in a timely manner, with all instructions and airspace restrictions.

7. Exhibits adequate knowledge of two-way radio communications failure procedures.

8. Intercepts, in a timely manner, all courses, radials, and bearings appropriate to the procedure, route, clearance, or as directed by the examiner.

9. Maintains the appropriate airspeed within ±10 knots, headings within ±10°, altitude within ±100 feet (30 meters); and accurately tracks a course, radial, or bearing.

10. Conducts the departure phase to a point where, in the opinion of the examiner, the transition to the en route environment is complete.

III. AREA OF OPERATION: INFLIGHT MANOEUVRES

A. TASK: STEEP TURNS

Objective: To determine that the applicant:

1. In actual or simulated instrument conditions, exhibits adequate knowledge of steep turns (if applicable to the aeroplane) and the factors associated with performance; and, if applicable, wing loading, angle of bank, stall speed, pitch, power requirements, and over-banking tendencies.

2. Selects an altitude recommended by the manufacturer, training syllabus, or other training directive, but in no case lower than 3,000 feet (900 meters) AGL.

3. Establishes the recommended entry airspeed.

4. Rolls into a coordinated turn of 180° or 360° with a bank of at least 45°. Maintains the bank angle within ±5° while in smooth, stabilized flight.

5. Applies smooth coordinated pitch, bank, and power to maintain the specified altitude within ±100 feet (30 meters) and the desired airspeed within ±10 knots.

6. Rolls out of the turn (at approximately the same rate as used to roll into the turn) within ±10° of the entry or specified heading, stabilizes the aeroplane in a straight-and-level attitude or, at the discretion of the examiner, reverses the direction of turn and repeats the manoeuvre in the opposite direction.

7. Avoids any indication of an approaching stall, abnormal flight attitude, or exceeding any structural or operating limitation during any MCAR of the manoeuvre.

B. TASK: APPROACHES TO STALLS

THREE approaches to stall are required, as follows (unless otherwise specified by the FSB Report):

1. One in the takeoff configuration (except where the aeroplane uses only zero-flap takeoff configuration) or approach configuration.

2. One in a clean configuration.

3. One in a landing configuration.

One of these approaches to a stall must be accomplished while in a turn using a bank angle of 15 to 30°.

Objective: To determine that the applicant:

1. In actual or simulated instrument conditions exhibits adequate knowledge of the factors, which influence stall characteristics, including the use of various drag configurations, power settings, pitch altitudes, weights, and bank angles. Also, exhibits adequate knowledge of the proper procedure for resuming normal flight.

2. Selects an entry altitude that is in accordance with the AFM or POH, but in no case lower than an altitude that will allow recovery to be safely completed at a minimum of 3,000 feet (900 meters) AGL. When accomplished in an FTD or flight simulator, the entry altitude may be at low, intermediate, or high altitude as appropriate for the aeroplane and the configuration, at the discretion of the examiner.

3. Observes the area is clear of other aircraft prior to accomplishing an approach to a stall.

4. While maintaining altitude, slowly establishes the pitch attitude (using trim or elevator/stabilizer), bank angle, and power setting that will induce stall at the desired target airspeed.

5. Announces the first indication of an impending stall (such as buffeting, stick shaker, decay of control effectiveness, and any other cues related to the specific aeroplane design characteristics) and initiates recovery or as directed by the examiner (using maximum power or as directed by the examiner).

6. Recovers to a reference airspeed, altitude and heading, allowing only the acceptable altitude or airspeed loss, and heading deviation.

7. Demonstrates smooth, positive control during entry, approach to a stall, and recovery.

C.TASK: Powerplant Failure-Multiengine Aeroplane

NOTE: When not in an FTD or a flight simulator, the feathering of one propeller must be demonstrated in any multiengine aeroplane equipped with propellers (includes turboprop), which can be safely feathered and unfeathered while airborne. In a multiengine jet aeroplane, one engine must be shut down and a restart must be demonstrated while airborne. Feathering or shutdown should be performed only under conditions, and at such altitudes (no lower than 3,000 feet [900 meters] AGL) and in a position where a safe landing can be made on an established airport in the event difficulty is encountered in unfeathering the propeller or restarting the engine. At an altitude lower than 3,000 feet (900 meters) AGL, simulated engine failure will be performed by setting the powerplant controls to simulate zero-thrust. In the event propeller cannot be unfeathered or engine air started during the test, it should be treated as an emergency. When authorised and conducted in a flight simulator, feathering or shutdown may be performed in conjunction with any procedure or manoeuvre and at locations and altitudes at the discretion of the examiner. However, when conducted in an FTD, authorisations shall be limited to shutdown, feathering, restart, and/or unfeathering procedures only. See appendix 1.

Objective: To determine that the applicant:

1. Exhibits adequate knowledge of the flight characteristics and controllability associated with maneuvering with powerplant(s) inoperative (as appropriate to the aeroplane).

2. Maintains positive aeroplane control. Establishes a bank of approximately 5°, if required, or as recommended by the manufacturer, to maintain coordinated flight, and properly trims for that condition.

3. Sets powerplant controls, reduces drag as necessary, correctly identifies and verifies the inoperative powerplant(s) after the failure (or simulated failure).

4. Maintains the operating powerplant(s) within acceptable operating limits.

5. Follows the prescribed aeroplane checklist, and verifies the procedures for securing the inoperative powerplant(s).

6. Determines the cause for the powerplant(s) failure and if a restart is a viable option.

7. Maintains desired altitude within ±100 feet (30 meters), when a constant altitude is specified and is within the capability of the aeroplane.

8. Maintains the desired airspeed within ±10 knots.

9. Maintains the desired heading within ±10° of the specified heading.

10. Demonstrates proper powerplant restart procedures (if appropriate) in accordance with CAA-approved procedure/checklist or the manufacturer's recommended procedures and pertinent checklist items.

D. TASK: POWERPLANT FAILURE-SINGLE-ENGINE AEROPLANE

NOTE: No simulated powerplant failure shall be given by the examiner in an aeroplane when an actual touchdown could not be safely completed should it become necessary.

Objective: To determine that the applicant:

1. Exhibits adequate knowledge of the flight characteristics, approach and forced (emergency) landing procedures, and related procedures to use in the event of a powerplant failure (as appropriate to the aeroplane).

2. Maintains positive control throughout the manoeuvre.

3. Establishes and maintains the recommended best glide airspeed, ±5 knots, and configuration during a simulated powerplant failure.

4. Selects a suitable airport or landing area, which is within the performance capability of the aeroplane.

5. Establishes a proper flight pattern to the selected airport or landing area, taking into account altitude, wind, terrain, obstructions, and other pertinent operational factors.

6. Follows the emergency checklist items appropriate to the aeroplane.

7. Determines the cause for the simulated powerplant failure (if altitude permits) and if a restart is a viable option.

8. Uses configuration devices, such as landing gear and flaps in a manner recommended by the manufacturer and/or approved by the CAASL.

E.TASK: SPECIFIC FLIGHT CHARACTERISTICS

Objective: To determine that the applicant:

1. Exhibits adequate knowledge of specific flight characteristics appropriate to the specific aeroplane, as identified by the FSB Report, such as Dutch Rolls in a Boeing 727 or Lear Jet.

2. Uses proper technique to enter into, operate within, and recover from specific flight situations.

F. TASK: RECOVERY FROM UNUSUAL ALTITUDES

Objective: To determine that the applicant:

1. Exhibits adequate knowledge of recovery from unusual altitudes.

2. Recovers from nose-high unusual altitudes, using proper pitch, bank, and power techniques.

3. Recovers from nose-low unusual altitudes, using proper pitch, bank, and power techniques.

IV. AREA OF OPERATION: INSTRUMENT PROCEDURES

NOTE: TASKS B through F are not required if the applicant holds a private pilot or commercial pilot certificate and is seeking a type rating limited to VFR.

A. TASK: STANDARD TERMINAL ARRIVAL/FLIGHT MANAGEMENT SYSTEM PROCEDURES

Objective: To determine that the applicant:

1. In actual or simulated instrument conditions, exhibits adequate knowledge of En Route Low and High Altitude Charts, STAR's/FMSP's, Instrument Approach Procedure Charts, and related pilot and controller responsibilities.

2. Uses the current and appropriate navigation publications for the proposed flight.

3. Selects and correctly identifies all instrument references, flight director and autopilot controls, and navigation and communications equipment associated with the arrival.

4. Performs the aeroplane checklist items appropriate to the arrival.

5. Establishes communications with ATC, using proper phraseology.

6. Complies, in a timely manner, with all ATC clearances, instructions, and restrictions.

7. Exhibits adequate knowledge of two-way communications failure procedures.

8. Intercepts, in a timely manner, all courses, radials, and bearings appropriate to the procedure, route, ATC clearance, or as directed by the examiner.

9. Adheres to airspeed restrictions and adjustments required by regulations, ATC, the POH, the AFM, or the examiner.

10. Establishes, where appropriate, a rate of descent consistent with the aeroplane operating characteristics and safety.

11. Maintains the appropriate airspeedN-speed within ±10 knots, but not less than VREF, if applicable; heading ±10°; altitude within ±100 feet (30 meters); and accurately tracks radials, courses, and bearings.

12. Complies with the provisions of the Profile Descent, STAR, and other arrival procedures, as appropriate.

B. TASK: Holding

Objective: To determine that the applicant:

1. In actual or simulated instrument conditions, exhibits adequate knowledge of holding procedures for standard and non-standard, published and non-published holding patterns. If

appropriate, demonstrates adequate knowledge of holding endurance, including, but not necessarily limited to, fuel on board, fuel flow while holding, fuel required to alternate, etc.

2. Changes to the recommended holding airspeed appropriate for the aeroplane and holding altitude, so as to cross the holding fix at or below maximum holding airspeed.

3. Recognizes arrival at the clearance limit or holding fix.

4. Follows appropriate entry procedures for a standard, non-standard, published, or non- published holding pattern.

5. Complies with ATC reporting requirements.

6. Uses the proper timing criteria required by the holding altitude and ATC or examiner's instructions.

7. Complies with the holding pattern leg length when a DME distance is specified.

8. Uses the proper wind-drift correction techniques to accurately maintain the desired radial, track, courses, or bearing.

9. Arrives over the holding fix as close as possible to the "expect further clearance" time.

10. Maintains the appropriate airspeed/V-speed within ±10 knots, altitude within ±100 feet (30 meters), headings within ±10°; and accurately tracks radials, courses, and bearings.

C. TASK: PRECISION INSTRUMENT APPROACHES

NOTE: Two precision approaches, utilizing aeroplane NAVAID equipment for centreline and glideslope guidance, must be accomplished in simulated or actual instrument conditions to DA/DH. At least one approach must be flown manually. The second approach may be flown via the autopilot, if appropriate, and if the DA/DH altitude does not violate the authorised minimum altitude for autopilot operation. Manually flown precision approaches may use raw data displays or may be flight director assisted, at the discretion of the examiner.

For multiengine aeroplanes at least one manually controlled precision approach must be accomplished with a simulated failure of one powerplant. The simulated powerplant failure should occur before initiating the final approach segment and must continue to touchdown or throughout the missed approach procedure. As the markings on localizer/glide slope indicators vary, a one-quarter scale deflection of either the localizer, or glide slope indicator is when it is displaced one-fourth of the distance that it may be deflected from the on glide slope or on localizer position.

Objective: To determine that the applicant:

1. Exhibits adequate knowledge of the precision instrument approach procedures with all engines operating, and with one engine inoperative.
2. Accomplishes the appropriate precision instrument approaches as selected by the examiner.

3. Establishes two-way communications with ATC using the proper communications phraseology and techniques, either personally, or, if appropriate, directs copilot/safety pilot to do so, as required for the phase of flight or approach segment.

4. Complies, in a timely manner, with all clearances, instructions, and procedures.

5. Advises ATC anytime the applicant is unable to comply with a clearance.

6. Establishes the appropriate aeroplane configuration and airspeedN-speed considering turbulence, wind shear, microburst conditions, or other meteorological and operating conditions.

7. Completes the aeroplane checklist items appropriate to the phase of flight or approach segment, including engine out approach and landing checklists, if appropriate.

8. Prior to beginning the final approach segment, maintains the desired altitude ±100 feet (30 meters), the desired airspeed within ±10 knots, the desired heading within ±5°; and accurately tracks radials, courses, and bearings.

9. Selects, tunes, identifies, and monitors the operational status of ground and aeroplane navigation equipment used for the approach.

10. Applies the necessary adjustments to the published DA/DH and visibility criteria for the aeroplane approach category as required, such as-

    a. Notices to Airmen, including Flight Data Center Procedural NOTAMs.

    b. Inoperative aeroplane and ground navigation equipment.

    c. Inoperative visual aids associated with the landing environment.

    d. National Weather Service (NWS) reporting factors and criteria.

11. Establishes a predetermined rate of descent at the point where the electronic glide slope begins, which approximates that required for the aeroplane to follow the glide slope.

12. Maintains a stabilized final approach, from the Final Approach Fix to Decision Height allowing no more than one-quarter scale deflection of either the glide slope or localizer indications and maintains the desired airspeed within ±5 knots.

13. A missed approach or transition to a landing shall be initiated at Decision Height.

14. Initiates immediately the missed approach when at the DA/DH, and the required visual references for the runway are not unmistakably visible and identifiable.

15. Transitions to a normal landing approach (missed approach for seaplanes) only when the aeroplane is in a position from which a descent to a landing on the runway can be made at a normal rate of descent using normal maneuvering.

16. Maintains localizer and glide slope within one-quarter-scale deflection of the indicators during the visual descent from DA/DH to a point over the runway where glide slope must be abandoned to accomplish a normal landing.

D. TASK: NONPRECISION INSTRUMENT APPROACHES

NOTE: The applicant must accomplish at least two nonprecision approaches (one of which must include a procedure turn) in simulated or actual weather conditions, using two different approach systems. At least one nonprecision approach must be flown manually without receiving radar vectors. The examiner will select nonprecision approaches that are representative of that which the applicant is likely to use. The choices must utilize two different systems; i.e., NDB and one of the following: VOR, LOC, LDA, GPS, or LORAN.

Objective: To determine that the applicant:

1. Exhibits adequate knowledge of nonprecision approach procedures representative of those the applicant is likely to use.

2. Accomplishes the nonprecision instrument approaches selected by the examiner.

3. Establishes two-way communications with ATC as appropriate to the phase of flight or approach segment and uses proper communications phraseology and techniques.

4. Complies with all clearances issued by ATC.

5. Advises ATC or the examiner any time the applicant is unable to comply with a clearance.

6. Establishes the appropriate aeroplane configuration and airspeed, and completes all applicable checklist items.

7. Maintains, prior to beginning the final approach segment, the desired altitude ±100 feet (30 meters), the desired airspeed ±10 knots, the desired heading ±5°; and accurately tracks radials, courses, and bearings.

8. Selects, tunes, identifies, and monitors the operational status of ground and aeroplane navigation equipment used for the approach.

9. Applies the necessary adjustments to the published Minimum Descent Altitude (MDA) and visibility criteria for the aeroplane approach category when required, such as-

   a. Notices to Airmen, including Flight Data Center Procedural NOTAMs.

   b. Inoperative aeroplane and ground navigation equipment.

   c. Inoperative visual aids associated with the landing environment.

   d. National Weather Service (NWS) reporting factors and criteria.

10. Establishes a rate of descent that will ensure arrival at the MDA (at, or prior to reaching, the visual descent point (VDP), if published) with the aeroplane in a position from which a descent from MDA to a landing on the intended runway can be made at a normal rate using normal maneuvering.

11. Allows, while on the final approach segment, not more than quarter-scale deflection of the Course Deviation Indicator (CDI) or ±5° in the case of the RMI or bearing pointer,

12. and maintains airspeed within ±5 knots of that desired.

13. Maintains the MDA, when reached, within -0, +50 feet (-0, +15 meters) to the missed approach point.

14. Executes the missed approach if the required visual references for the intended runway are not unmistakably visible and identifiable at the missed approach point.

15. Executes a normal landing from a straight-in or circling approach when instructed by the examiner.

NOTE: If TASK D, Nonprecision Instrument Approaches, the second approach may be waived, if the applicant demonstrates a high degree of proficiency on the first approach and the applicant's training records or instructor certification show that the applicant has satisfactorily completed the nonprecision approach training requirements. The instrument approaches are considered to begin when the aeroplane is over the initial approach fix for the procedure being used and end when the aeroplane touches down on the runway or when transition to a missed approach configuration is completed. Instrument conditions need NOT be simulated below the minimum altitude for the approach being accomplished.

E. TASK: CIRCLING APPROACH

Objective: To determine that the applicant:

1. Exhibits adequate knowledge of circling approach categories, speeds, and procedures to a specified runway.

2. In simulated or actual instrument conditions to MDA, accomplishes the circling approach selected by the examiner.

3. Demonstrates sound judgment and knowledge of the aeroplane maneuvering capabilities throughout the circling approach.

4. Confirms the direction of traffic and adheres to all restrictions and instructions issued by ATC.

5. Descends at a rate that ensures arrival at the MDA at, or prior to, a point from which a normal circle-to-land manoeuvre can be accomplished.

6. Avoids descent below the appropriate circling MDA or exceeding the visibility criteria until in a position from which a descent to a normal landing can be made.

7. Maneuvers the aeroplane, after reaching the authorised circling approach altitude, by visual references to maintain a flightpath that permits a normal landing on a runway at least 90° from the final approach course.

8. Performs the procedure without excessive maneuvering and without exceeding the normal operating limits of the aeroplane (the angle of bank should not exceed 30°).

9. Maintains the desired altitude within -0, +100 feet (-0, +30 meters), heading/track within ±5°, the airspeedN-speed within ±5 knots, but not less than the airspeed as specified in the POH or the AFM.

10. Uses the appropriate aeroplane configuration for normal and abnormal situations and procedures.

11. Turns in the appropriate direction, when a missed approach is dictated during the circling approach, and uses the correct procedure and aeroplane configuration.

12. Performs all procedures required for the circling approach and aeroplane control in a smooth, positive, and timely manner.

F. TASK: MISSED APPROACH

NOTE: The applicant must perform two missed approaches with one being from a precision approach (ILS, MLS, or GPS). One complete published missed approach must be accomplished. Additionally, in multiengine aeroplanes, a missed approach must be accomplished with one engine inoperative (or simulated inoperative). The engine failure may be experienced anytime prior to the initiation of the approach, during the approach, or during the transition to the missed approach attitude and configuration.

Going below the MDA or DA/DH, as appropriate, prior to the initiation of the missed approach shall be considered unsatisfactory performance. However, satisfactory performance may be concluded if the missed approach is properly initiated at DA/DH and the aeroplane descends below DA/DH only because of the momentum of the aeroplane transitioning from a stabilized approach to a missed approach.

Objective: To determine that the applicant:

1. Exhibits adequate knowledge of missed approach procedures associated with standard instrument approaches.

2. Initiates the missed approach procedure promptly by the timely application of power, establishes the proper climb attitude, and reduces drag in accordance with the approved procedures.

3. Reports to ATC, beginning the missed approach procedure.

4. Complies with the appropriate missed approach procedure or ATC clearance.

5. Advises ATC any time the applicant is unable to manoeuvre the aeroplane to comply with a clearance.

6. Follows the recommended aeroplane checklist items appropriate to the go-around procedure for the aeroplane used.

7. Requests clearance, if appropriate, to the alternate airport, another approach, a holding fix, or as directed by the examiner.

8. Maintains the desired altitudes ±100 feet (30 meters), airspeed ±5 knots, heading ±5°; and accurately tracks courses, radials, and bearings.

V. AREA OF OPERATION: LANDINGS AND APPROACHES TO LANDINGS

NOTE: Notwithstanding the authorisations for the combining of manoeuvres and for the waiver of manoeuvres, the applicant must make at least three actual landings (one to a full stop). These landings must include the types listed in this AREA OF OPERATION; however, more than one type may be combined where appropriate (i.e., crosswind and landing from a precision approach or landing with simulated powerplant failure, etc.). For all landings, touchdown should be 500 to 3,000 feet (150 to 900 meters) past the runway threshold, not to exceed one-third of the runway length, with the runway centreline between the main gear. An amphibian type rating shall bear the limitation "LIMITED TO LAND" or "LIMITED TO SEA," as appropriate, unless the applicant demonstrates proficiency in both land and sea operations.

A. TASK: NORMAL AND CROSSWIND APPROACHES AND LANDINGS

NOTE: In an aeroplane with a single powerplant, unless the applicant holds a commercial pilot certificate, he or she must accomplish three accuracy approaches and spot landings from an altitude of 1,000 feet (300 meters) or less, with the engine power lever in idle and
180° of change in direction. The aeroplane must touch the ground in a normal landing attitude beyond and within 200 feet (60 meters) of a designated line or point on the runway. At least one landing must be from a forward slip. Although circular approaches are acceptable, 180° approaches using two 90° turns with a straight base leg are preferred.

Objective: To determine that the applicant:

1. Exhibits adequate knowledge of normal and crosswind approaches and landings including recommended approach angles, airspeeds, V-speeds, configurations, performance limitations, wake turbulence, LAHSO, and safety factors (as appropriate to the aeroplane).

2. Establishes the approach and landing configuration appropriate for the runway and meteorological conditions, and adjusts the powerplant controls as required.

3. Maintains a ground track that ensures the desired traffic pattern will be flown, taking into account any obstructions and ATC or examiner instructions.

4. Verifies existing wind conditions, makes proper correction for drift, and maintains a precise ground track.

5. Maintains a stabilized approach and the desired airspeed/V-speed within ±5 knots.

6. Accomplishes a smooth, positively controlled transition from final approach to touchdown.

7. Maintains positive directional control and crosswind correction during the after-landing roll.

8. Uses spoilers, prop reverse, thrust reverse, wheel brakes, and other drag/braking devices, as appropriate, in such a manner to bring the aeroplane to a safe stop.

9. Completes the applicable after-landing checklist items in a timely manner and as

10. recommended by the manufacturer.

B.TASK: LANDING FROM A PRECISION APPROACH

NOTE: If circumstances beyond the control of the applicant prevent an actual landing, the examiner may accept an approach to a point where, in his or her judgment, a safe landing and a full stop could have been made, and credit given for a missed approach. Where a simulator, approved for landing from a precision approach, is used, the approach may be continued through the landing and credit given for one of the landings required by this AREA OF OPERATION.

Objective: To determine that the applicant:

1. Exhibits awareness of landing in sequence from a precision approach.

2. Considers factors to be applied to the approach and landing such as displaced thresholds, meteorological conditions, NOTAMs, and ATC or examiner instructions.

3. Uses the aeroplane configuration and airspeedN-speeds, as appropriate.

4. Maintains, during the final approach segment, glide slope and localizer indications within applicable standards of deviation, and the recommended airspeedN-speed ±5 knots.

5. Applies gust/wind factors as recommended by the manufacturer, and takes into account meteorological phenomena such as wind shear, microburst, and other related safety of flight factors.

6. Accomplishes the appropriate checklist items.

7. Transitions smoothly from simulated instrument meteorological conditions at a point designated by the examiner, maintaining positive aeroplane control.

8. Accomplishes a smooth, positively controlled transition from final approach to touchdown.

9. Maintains positive directional control and crosswind correction during the after-landing roll.

10. Uses spoilers, prop reverse, thrust reverse, wheel brakes, and other drag/braking devices, as appropriate, in such a manner to bring the aeroplane to a safe stop after landing.

11. Completes the applicable after-landing checklist items in a timely manner and as recommended by the manufacturer.

C. TASK: Approach and Landing With (Simulated) Powerplant Failure – Multiengine Aeroplane

NOTE: In aeroplanes with three powerplants, the applicant shall follow a procedure (if approved) that approximates the loss of two powerplants, the centre and one outboard powerplant. In other multiengine aeroplanes, the applicant shall follow a procedure, which simulates the loss of 50 percent of available powerplants, the loss being simulated on one side of the aeroplane.

Objective: To determine that the applicant:

1. Exhibits adequate knowledge of the flight characteristics and controllability

2. associated with maneuvering to a landing with (a) powerplant(s) inoperative (or simulated inoperative) including the controllability factors associated with maneuvering, and the applicable emergency procedures.

3. Maintains positive aeroplane control. Establishes a bank of approximately 5°, if required, or as recommended by the manufacturer, to maintain coordinated flight, and properly trims for that condition.

4. Sets powerplant controls, reduces drag as necessary, correctly identifies and verifies the inoperative powerplant(s) after the failure (or simulated failure).

5. Maintains the operating powerplant(s) within acceptable operating limits.

6. Follows the prescribed aeroplane checklist, and verifies the procedures for securing the inoperative powerplant(s).

7. Proceeds toward the nearest suitable airport.

8. Maintains, prior to beginning the final approach segment, the desired altitude ±100 feet (30 meters), the desired airspeed ±10 knots, the desired heading ±5°; and accurately tracks courses, radials, and bearings

9. Establishes the approach and landing configuration appropriate for the runway or landing area, and meteorological conditions; and adjusts the powerplant controls as required.

10. Maintains a stabilized approach and the desired airspeedN-speed within ±5 knots.

11. Accomplishes a smooth, positively controlled transition from final approach to touchdown.

12. Maintains positive directional control and crosswind corrections during the after-landing roll.

13. Uses spoilers, prop reverse, thrust reversers, wheel brakes, and other drag/braking devices, as appropriate, in such a manner to bring the aeroplane to a safe stop after landing.

14. Completes the applicable after-landing checklist items in a timely manner, after clearing the runway, and as recommended by the manufacturer.

D. TASK: LANDING FROM A CIRCULAR APPROACH

Objective: To determine that the applicant:

1. Exhibits adequate knowledge of a landing from a circling approach.

2. Selects, and complies with, a circling approach procedure to a specified runway.

3. Considers the environmental, operational, and meteorological factors that affect a landing from a circling approach.

4. Confirms the direction of traffic and adheres to all restrictions and instructions issued by ATC.

5. Descends at a rate that ensures arrival at the MDA at, or prior to, a point from which a normal circle-to-land manoeuvre can be accomplished.

6. Avoids descent below the appropriate circling MDA or exceeding the visibility criteria until in a position from which a descent to a normal landing can be made.

7. Accomplishes the appropriate checklist items.

8. Maneuvers the aeroplane, after reaching the authorised circling approach altitude, by visual references, to maintain a flightpath that permits a normal landing on a runway at least 90° from the final approach course.

9. Performs the manoeuvre without excessive maneuvering and without exceeding the normal operating limits of the aeroplane. The angle of bank should not exceed 30°.

10. Maintains the desired altitude within +100, -0 feet (+30, -0 meters), heading within ±5°, and approach airspeedN-speed within ±5 knots.

11. Uses the appropriate aeroplane configuration for normal and abnormal situations and procedures.

12. Performs all procedures required for the circling approach and aeroplane control in a timely, smooth, and positive manner.

13. Accomplishes a smooth, positively controlled transition to final approach and touchdown or to a point where in the opinion of the examiner that a safe full stop landing could be made.

14. Maintains positive directional control and crosswind correction during the after-landing roll.

15. Uses spoilers, prop reverse, thrust reverse, wheel brakes, and other drag/braking devices, as appropriate, in such a manner to bring the aeroplane to a safe stop.

16. Completes the appropriate after-landing checklist items, after clearing the runway, in a timely manner and as recommended by the manufacturer.

E. TASK: REJECTED LANDING

NOTE: The manoeuvre may be combined with instrument, circling, or missed approach procedures, but instrument conditions need not be simulated below 100 feet (30 meters) above the runway. This manoeuvre should be initiated approximately 50 feet (15 meters) above the runway and approximately over the runway threshold.

For those applicants seeking a VFR only type rating in an aeroplane not capable of instrument flight, and where this manoeuvre is accomplished with a simulated engine failure, it should not be initiated at speeds or altitudes below that recommended in the POH.

Objective: To determine that the applicant:

1. Exhibits adequate knowledge of a rejected landing procedure including the conditions that dictate a rejected landing, the importance of a timely decision, LAHSO considerations, the recommended airspeedN-speeds, and also the applicable "clean-up" procedure.

2. Makes a timely decision to reject the landing for actual or simulated circumstances and makes appropriate notification when safety-of-flight is not an issue.

3. Applies the appropriate power setting for the flight condition and establishes a pitch attitude necessary to obtain the desired performance.

4. Retracts the wing flaps/drag devices and landing gear, if appropriate, in the correct sequence and at a safe altitude, establishes a positive rate of climb and the appropriate airspeedN-speed within ±5 knots.

5. Trims the aeroplane as necessary, and maintains the proper ground track during the rejected landing procedure.

6. Accomplishes the appropriate checklist items in a timely manner in accordance with approved procedures.

F. TASK: LANDING FROM A NO FLAP OR A NONSTANDARD FLAP APPROACH

NOTE: This manoeuvre need not be accomplished for a particular aeroplane type if the Administrator has determined that the probability of flap extension failure on that type aeroplane is extremely remote due to system design. The examiner must determine whether checking on slats only and partial-flap approaches are necessary for the practical test.
Objective:To determine that the applicant:

1. Exhibits adequate knowledge of the factors, which affect the flight characteristics of an aeroplane when full or partial flaps, leading edge flaps, and other similar devices become inoperative.

2. Uses the correct airspeedsN-speeds for the approach and landing.

3. Maintains the proper aeroplane pitch attitude and flightpath for the configuration, gross weight, surface winds, and other applicable operational considerations.

4. Uses runway of sufficient length for the zero or nonstandard flap condition.

5. Manoeuvres the aeroplane to a point where a touchdown at an acceptable point on the runway and a safe landing to a full stop could be made.

6. After landing, uses spoilers, prop reverse, thrust reverse, wheel brakes, and other drag/braking devices, as appropriate, in such a manner to bring the aeroplane to a safe stop.

VI. AREA OF OPERATION: NORMAL AND ABNORMAL PROCEDURES

Objective: To determine that the applicant:

1. Possesses adequate knowledge of the normal and abnormal procedures of the systems, subsystems, and devices relative to the aeroplane type (as may be determined by the examiner); knows immediate action items to accomplish, if appropriate, and proper checklist to accomplish or to call for, if appropriate.

2. Demonstrates the proper use of the aeroplane systems, subsystems, and devices (as may be determined by the examiner) appropriate to the aeroplane, such as-

   a. PowerPlant.

   b. fuel system.

   c. electrical system.

   d. hydraulic system.

   e. environmental and pressurization systems. f. fire detection and extinguishing systems.

   g. navigation and avionics systems.

   h. automatic flight control system, electronic flight instrument system, and related subsystems.

   i. flight control systems.

   j. anti-ice and deice systems.

   k. aeroplane and personal emergency equipment, other systems, subsystems, and devices specific to the type aeroplane, including make, model, and series.

VII. AREA OF OPERATION: EMERGENCY PROCEDURES

A.TASK: EMERGENCY PROCEDURES

Objective: To determine that the applicant:

1. Possesses adequate knowledge of the emergency procedures (as may be determined by the examiner) relating to the particular aeroplane type.

2. Demonstrates the proper emergency procedures (as must be determined by the examiner) relating to the particular aeroplane type, including-

   a. emergency descent (maximum rate).

   b. in-flight fire and smoke removal.

   c. rapid decompression.

   d. emergency evacuation.

e. others (as may be required by the AFM).

3. Demonstrates the proper procedure for any other emergency outlined (as must be determined by the examiner) in the appropriate approved AFM.

VIII. AREA OF OPERATION: POSTFLIGHT PROCEDURES

A. TASK: AFTER-LANDING PROCEDURES

Objective: To determine that the applicant:

1. Exhibits adequate knowledge of safe after-landing/taxi/ramping/anchoring/docking and mooring procedures as appropriate.

2. Demonstrates proficiency by maintaining correct and positive control. In aeroplanes equipped with float devices, this includes water taxiing, approaching a buoy, sailing, and docking.

3. Maintains proper spacing on other aircraft, obstructions, and persons.

4. Accomplishes the applicable checklist items and performs the recommended procedures.

5. Maintains the desired track and speed.

6. Complies with instructions issued by ATC (or the examiner simulating ATC).

7. Observes runway hold lines, localizer and glide slope critical areas, and other surface control markings and lighting to prevent a runway incursion.

8. Maintains constant vigilance and aeroplane control during the taxi operation.

B. TASK: PARKING AND SECURING

Objective: To determine that the applicant:

1. Exhibits adequate knowledge of the parking, mooring, docking, beaching, and the securing aeroplane procedures.

2. Demonstrates adequate knowledge of the aeroplane forms/logs to record the flight time/discrepancie