



## **CIVIL AVIATION AUTHORITY OF SRI LANKA**

### **BIDDING DOCUMENT FOR**

### **IMPLEMENTATION AND MAINTENANCE OF THE FULLY AUTOMATED EXAMINATION SYSTEM FOR FLIGHT CREW LICENCE (FCL) (ESPL)**

**IFB/SP/2022/03**

## Table of Contents

<b><u>1.</u></b>	<b>Introduction.....</b>	<b>5</b>
<b>2.</b>	<b>Background of CAASL .....</b>	<b>5</b>
<b>2.1.</b>	<b>Issuance of Personnel Licenses &amp; Ratings .....</b>	<b>5</b>
<b>2.2.</b>	<b>Personnel Licensing examinations .....</b>	<b>6</b>
<b>2.3.</b>	<b>Existing Examination system of the CAASL .....</b>	<b>7</b>
<b>3.</b>	<b>Software Requirements and Scope of Work.....</b>	<b>7</b>
<b>3.1.</b>	<b>A. Online Exam Booking System (Customer Portal).....</b>	<b>8</b>
<b>3.2.</b>	<b>B. Examination &amp; Question Bank Management and Control System .....</b>	<b>9</b>
<b>3.3.</b>	<b>C. Computer based Examination Delivery System .....</b>	<b>10</b>
<b>3.4.</b>	<b>D. Analytical Review and Reporting System.....</b>	<b>10</b>
<b>4.</b>	<b>Final outputs, Reporting Requirements, Time Schedule for Deliverables .....</b>	<b>10</b>
<b>5.</b>	<b>Conditions for Proposal.....</b>	<b>11</b>
<b>6</b>	<b>Maintenance of the system .....</b>	<b>12</b>
<b>7</b>	<b>Preparation of Bids .....</b>	<b>12</b>
<b>8</b>	<b>Ownership of the System.....</b>	<b>14</b>
<b>9</b>	<b>Cost breakdown .....</b>	<b>14</b>
<b>10</b>	<b>Evaluation of the Bid. ....</b>	<b>14</b>
<b>11</b>	<b>Award of Contract. ....</b>	<b>17</b>
<b>12</b>	<b>The Submission of Bids.....</b>	<b>17</b>
<b>13</b>	<b>Public opening of financial proposals.....</b>	<b>17</b>
<b>14</b>	<b>Payment procedure .....</b>	<b>18</b>
<b>ANNEX I</b>	<b>- SUBJECTS/ LENGTH OF EXAMINATIONS &amp; DISTRIBUTION OF QUESTIONS .....</b>	<b>19</b>
<b>ANNEX II</b>	<b>- DATA SHEET.....</b>	<b>33</b>
<b>ANNEX III</b>	<b>- PRICE SCHEDULE .....</b>	<b>34</b>
<b>ANNEX IV</b>	<b>- ASSIGNMENTS OF SIMILAR NATURE DURING LAST 5 YEARS .....</b>	<b>35</b>
<b>ANNEX V</b>	<b>- WORK PLAN TIME SCHEDULE .....</b>	<b>36</b>
<b>ANNEX VI</b>	<b>- APPROACH AND METHODOLOGY.....</b>	<b>36</b>
<b>ANNEX VII</b>	<b>- COMPOSITION OF THE TEAM PERSONNEL &amp; EACH TEAM MEMBER .....</b>	<b>37</b>
<b>ANNEX VIII</b>	<b>- FORMAT OF CURRICULUM VITAE FOR MEMBERS OF BIDDERS'S TEAM.....</b>	<b>38</b>
<b>ANNEX IX</b>	<b>- WORK PROGRAM AND TIME SCHEDULE FOR KEY PERSONNEL WEEKS .....</b>	<b>39</b>
<b>ANNEX X</b>	<b>- BID SECURITY (BANK GUARANTEE) .....</b>	<b>40</b>
<b>ANNEX XI</b>	<b>- FORM OF PERFORMANCE GUARANTEE (UNCONDITIONAL) .....</b>	<b>41</b>
<b>ANNEX XII</b>	<b>- LETTER OF ACCEPTANCE .....</b>	<b>42</b>
<b>ANNEX XIII</b>	<b>- ACKNOWLEDGEMENT .....</b>	<b>43</b>
<b>ANNEX XIV</b>	<b>- FORMAT OF CONTRACT AGREEMENT .....</b>	<b>44</b>

# **LETTER OF INVITATION**

## **IMPLEMENTATION AND MAINTENANCE OF THE FULLY AUTOMATED FLIGHT CREW LICENSING EXAMINATION SYSTEM FOR PERSONNEL LICENSING**

Sealed Bids are hereby invited from ONLY qualified reputed and experienced development firms to implementation and maintain the fully automated Examination System for Personnel Licensing (ESPL) as described in the attached “**Terms of Reference**”- **Section 1** for efficient and systematic conduct of examinations for personnel applying to the CAASL for Licences to engage in civil aviation safety sensitive activities.

1. Proposed ESPL should facilitate to overall management and personnel licensing activities of the CAASL. The system should facilitate to record licences data, Licences for Flying or Maintenance of aircraft or provision of Air Traffic Control, Dispatch of Aircraft etc. stipulated in the IFB document No: IFB/SP/2022-03
2. Bidders shall comply with the following minimum qualification criteria to be eligible for the bid;
  - Local Bidder/principle with local support and experience of handling similar projects.
  - Should be an organization holding ISO/IEC 20000-1:2011 or later version certification qualifying to hold establish, implement, maintain and continually improve a service management system (SMS) or similar certification.
  - Bidders shall submit their past experience in undertaking such / similar projects with evidence
3. A complete set of Bidding Documents in English language can be collected by interested bidders on the submission of a written request and payment of a non-refundable fee of One Thousand Five hundred Rupees (Rs.1500/=) without VAT for each bid, during the period between 19/01/2022 and 08/03/2022 on working days between 0900hrs and 1500 hrs from the above address. The method of payment will be by cash.
4. Completed proposals are required to be submitted both Technical and Financial proposals with the signatures of authorized individuals/ official stamp shall be hand delivered or posted under registered cover addressed to the Chairman, Departmental Procurement Committee, 152/1, Minuwangoda Road (Opposite Radar Hill), Katunayake. with the marking “**IMPLEMENTATION AND MAINTENANCE OF THE FULLY AUTOMATED FLIGHT CREW EXAMINATION SYSTEM FOR PERSONNEL LICENSING**” at the top left-hand corner of the envelope with two sets marked “Financial” and “Technical” separately.
5. All Bids shall be accompanied by a Bid-Security of Rs.50,000.00 (FiftyThousand) unconditional on demand Bid bond obtained from a commercial bank approved by the Central Bank of Sri Lanka which shall be valid up to 90 Calendar days from the date of closing of Bid and included in the “Technical” envelope.
6. Closing date of submission of Bids is 09<sup>th</sup> March 2022 at 14.00hrs. and late submissions will be rejected.

7. A “Pre bid meeting” will be held on 08<sup>th</sup> February 2022 at 1000 hrs at the Head Office Building, at No 152/1, Opposite the Radar Hill, Minuwangoda Road, Katunayake.
8. Bidders are required to hold the proposal valid for 90 days from the date of submission during which period you will maintain without a change, the personnel proposed for the assignment and proposed price.
9. Please note that the payment which services from this contract will be subject to the tax liability in Sri Lanka. Please contact the relevant tax authorities for further information in this regard, if required. Please note that the cost of preparing a proposal and of negotiating the contract including site visits, if any, is not reimbursable
10. If the selected Bidder fails to deliver full working software within the proposed timeline, 0.05% of total project cost will be deducted for each date of the delay.
11. Selected Bidder has to submit a performance bond of which the value be 10% of the total quoted price (without taxes).Format of the performance bond attached.

Chairman

Departmental Procurement Committee

Civil Aviation Authority of Sri Lanka

152/1, Minuwangoda Road (Opposite Radar Hill), Katunayake.

Tel : 0112358824 Fax : 0112304676 Email : [mgrrdp@caa.lk](mailto:mgrrdp@caa.lk)

# **SECTION 1 – TERMS OF REFERENCE**

## **1. Introduction**

Civil Aviation Authority of Sri Lanka (CAASL) has a requirement to implement Computer Based Examination System which caters to all mobile and desktop devices and platforms with novel technology which fulfills the need of the customers (Pilots, Cabin Crew, Aircraft Engineers and Students etc.) who interact with CAASL.

The CAASL was established under the Civil Aviation Authority Act No 34 of 2002 on 27th December 2002. It is deemed a Public Enterprise for the purpose of audit of accounts under Article 154 of the Constitution of the Democratic Socialist Republic of Sri Lanka. The primary function of the CAASL is to regulate local civil aviation industry under the legislative provisions in the Civil Aviation Authority of Sri Lanka Act No 34 of 2002 and Civil Aviation Act No.14 of 2010, in conformity with the applicable International Standards and Recommended Practices adopted by the International Civil Aviation Organization (ICAO) aiming at higher performance in safety, security, efficiency, regularity and environmental responsiveness of the industry that contributes to growth of the national economy, for enhancement of quality of life of citizens of the country.

Currently CAASL has offline examination system but there is no online registration system and exam booking system.

## **2. Background of CAASL**

CAASL is the regulatory authority changed for the regulation of civil aviation industry in conformity with the implementation of International Standards and Recommended practices stipulated by the International Civil Aviation Organization and conducted of Safety Oversight of Civil Aviation in the country. Main responsibility of CAASL is to ensure “Safety and Security” of passengers in civil aviation.

Training Organization & Personnel Licensing Section is dealing with the certification of personnel who perform safety critical job functions in the Civil Aviation Industry and certification of Aviation Training Organizations. It is established to carry out the functions and administrative processes leading up to the issuance of a license, rating or other certificates to those personnel and Aviation training organizations who are required to be in possession of such documents by law in order to carry out their respective job functions. With the rapid growth of the Internet usage for obtaining CAASL services in order to fulfill day to day needs online examination booking system and computer based examination system has become a major requirement.

### **2.1. Issuance of Personnel Licenses & Ratings**

CAASL issues the following personnel licenses under the legal provisions of Chapter (vii) of Civil Aviation Act # 14 of 2010 and Civil Aviation (Licensing of Personnel and Training Institutions) Regulation no 01 of 2018 and Chapter (v) & Sections 22 to 28 of Air Navigations Regulations of 1955 and ASNs 28, 97, Implementing Standards 08, 35, 36, 43, 48, 49, 50, 51, 55, 66, 67, 68, 69, 71, 72, 76, 92.

### **2.1.1 Flight Crew Licences**

- 2.1.1.1. Student pilot licence
- 2.1.1.2. Private pilot licence
- 2.1.1.3. Commercial pilot licence
- 2.1.1.4. Multi-Crew-Pilot Licence
- 2.1.1.5. Airline transport pilot licence
- 2.1.1.6. Glider Pilot Licence
- 2.1.1.7. Free balloon pilot licence
- 2.1.1.8. Flight Navigator Licence
- 2.1.1.9. Flight Engineer Licence

### **2.1.2 Ratings for Flight Crew Licences**

- 2.1.2.1 Instrument rating
- 2.1.2.2 Flight instructor rating appropriate to aeroplanes, airships,
- 2.1.2.3 helicopters, and powered- lifts.

## **2.2. Personnel Licensing examinations**

For the issuance of above licenses , all applicants shall demonstrate a level of knowledge appropriate to the privileges granted to the licence and appropriate to the category to be included in the licence, in respective subjects areas.

The PEL section of CAASL has the responsibility for the organization and conduct of examinations by preparing papers, conducting the examination giving clear instructions to the candidate and providing results. The lists of exams are shown below;

### **2.2.1 PPL Exam Subject (Aeroplane & Helicopter) -**

#### Multiple Choice Examination Papers

- 2.2.1.1 Air Law
- 2.2.1.2 Communications
- 2.2.1.3 Flight Performance and Planning (A)
- 2.2.1.4 Flight Performance and Planning (H)
- 2.2.1.5 Meteorology
- 2.2.1.6 Aircraft General Knowledge (A)
- 2.2.1.7 Aircraft General Knowledge (H)
- 2.2.1.8 Human Performance
- 2.2.1.9 Navigation

### **2.2.2 CPL (Aeroplane & Helicopter)-**

#### Multiple Choice Examination Papers

- 2.2.2.1 Principles of Flight
- 2.2.2.2 Aircraft General
- 2.2.2.3 Performance & Planning
- 2.2.2.4 Navigation
- 2.2.2.5 Meteorology
- 2.2.2.6 Operational Procedures
- 2.2.2.7 Air Law
- 2.2.2.8 Human Performance & Limitations
- 2.2.2.9 VFR Communications

### **2.2.3 ATPL (Aeroplane & Helicopter)**

#### Multiple Choice Examination Papers

- 2.2.3.1 Principles of Flight
- 2.2.3.2 Airframes
- 2.2.3.3 Mass & Balance
- 2.2.3.4 Performance
- 2.2.3.5 Instrumentation
- 2.2.3.6 Operational Procedures
- 2.2.3.7 Flight Planning
- 2.2.3.8 General Navigation
- 2.2.3.9 Radio Navigation
- 2.2.3.10 Meteorology
- 2.2.3.11 Air Law
- 2.2.3.12 Human Performance & Limitations
- 2.2.3.13 VFR Communication
- 2.2.3.14 IFR Communication

## **2.3. Existing Examination system of the CAASL**

CAASL has been able to successfully implement a computer based examinations system for pilot licences with a suitable software capable of holding examinations on a predetermined configuration of number of questions in each subject, in each subdivision of a subject & further subdivisions as required in each subject areas..

The existing methods of testing Aircraft Maintenance Engineers, Flight Operations Officers and air traffic control personnel are by paper based written examination prepared by CAASL and examinations are conducted at a regular intervals as pre-determined schedule and published by CAASL.

## **3. Software Requirements and Scope of Work**

Civil Aviation Authority seeks to build an efficient and effective computer based system to improve productivity and quality of conducting examinations for the issuance of personnel licenses. After acquiring the ability of conducting own knowledge examinations for pilots

using the Moodle platform computer based system. Developing a Pilot Licensing examination system with including new question banks and reference material to meet requirements of IS 72 is an urgent requirement.

Proposed new computer based examination system should have following requirements,

- A. Online Exam Booking System (Customer Portal)
- B. Examination & Question Bank Management and Control System
- C. Computer based Exam Delivery system
- D. Analytical Review and Reporting System

### **3.1. A. Online Exam Booking System (Customer Portal)**

The Online examination booking system will manage online examination booking of the CAASL and will be able to share information and to provide statistics of examination bookings.

Online examination booking system should include following features to support Candidate functions,

#### **3.1.1 New candidate registration-**

Candidate register with CAASL after submitting an application and making applicable payment. This process shall be done manually at the CAASL examination unit.

Fingerprint of the candidate shall be entered in to Biometric Identification during registration process.

#### **3.1.2 Approving a profile of a candidate-**

New requests shall be displayed for Admin's approval

Acceptance by the system of the applicant. System shall be integrated with CAASL applicant's database and check whether the applicant has any suspension, revocation or black listing.

CAASL to approve profile (for the first time only) after checking details and message to be send to candidate informing that he/she is authorized to appear for exams online.

Username and password to be send to the candidate with guidance applicable for examination.

#### **3.1.3 Existing Candidate login interface**

#### **3.1.4 Update Candidate profile.**

#### **3.1.5 Online examination booking for all candidates**

Booking of examination should be done by selecting the exam and filling a specific application form designed by CAASL. Link to be provided from CAASL website.

Candidate is to login using username and password.

Candidate to select and book exam subject to slots availability.



- 3.1.6 Examination booking management- granting of slots to be terminated once the candidate pass/exceed the allocated time duration to complete the examination.
- 3.1.7 Make payment for exams (should integrate current CAASL's e-payment system).
- 3.1.8 Receiving their results.  
Receiving information through the Customer Portal via their personal accounts and auto generated email.
- 3.1.9 Calendar Layout to be displayed with following features;  
Message confirming receipt of application  
Message confirming successful registration  
Message confirming an examination slot  
Calendar layout with available slots  
Calendar layout with allocated slots
- 3.1.10 Statistics reports to be generated from the Booking system  
Utilization of slots (by utilized %, exam wise, subject wise)  
Details of cancellation and non-attendance after confirming slots

### **3.2. B. Examination & Question Bank Management and Control System**

Examination & Question Bank Management System and Control System shall have following features,

- 3.2.1 High Security of the system,
- 3.2.2 Question Bank Development and Management
- 3.2.3 Ability to feed the questions,
- 3.2.4 Ability to update, amend, removing question and answers time to time,
- 3.2.5 Ability to deliver examination papers and marking the paper according to the marking schemes,
- 3.2.6 Ability to provide statistical analysis,
- 3.2.7 Ability to obtain desired reports,
- 3.2.8 Ability to provide different levels of authority (administrator, Director, Senior Inspector, Inspector),
- 3.2.9 Display the Exam title and the login/user name on the exam window throughout the exam,
- 3.2.10 Appear countdown timer when commencing the exam and make it prominent,
- 3.2.11 Auto submit the active examination (answers given) when the allocated time is over,
- 3.2.12 Provision of examination results to candidate and retain for evaluation,
- 3.2.13 High reliability offline delivery capability,
- 3.2.14 System expansion,
- 3.2.15 Documentation  
Full documentation including all system design and user manuals shall be provided to CAASL by the system developer.

#### 3.2.16 Training for CAASL staff

Core IT training for system installation and minor error handling

Administration training for relevant CAASL staff.

Operating training for CAASL Staff.

#### 3.2.17 Exam duration and question format for each exam is attached on Annex I.

### 3.3. C. Computer based Examination Delivery System

3.3.1 Computer based examination system should set up on CAASL's examination center.

3.3.2 That can cater to 22 exams at once.

3.3.3 The examination delivery interface should have a range of functionality to ensure examination delivery is completed as scheduled.

3.3.4 System for Biometric identification -Fingerprint to be scanned before appearing an examination and system is to give OK to candidate to proceed the exam if booking fingerprint matches

3.3.5 Methodology of encountering Interruptions.

3.3.6 Question reliability analysis.

### 3.4. D. Analytical Review and Reporting System

3.4.1 Analytical Review Capability

3.4.2 Inbuilt reporting capability

3.4.3 Produces all required reports.

## 4. Final outputs, Reporting Requirements, Time Schedule for Deliverables

### 4.1 Bidding stage

4.1.1 At first stage bidder should send software development proposal with including architectural diagram for proposed system.

4.1.2 Requirement hardware specification of the software.

4.1.3 Development time schedule.

4.1.4 Requirement for 3<sup>rd</sup> part software and licence.

### 4.2 After Award of Contract

4.2.1 Quality Assurance (QA) Plan, Test Cases and QA Reports

4.2.2 IS Audit Approval by SLCERT (or any other party recommended by SLCERT)

4.2.3 User manual for operation and maintain system

Following document need to submit and should be drafted and finalized with the approval of CAASL and handed over to the CAASL at the time of sign-off.

1. System Requirement Specification (SRS)

2. Test reports

3. System Administration manual.

4. User Management manual

4.2.4 User training

## **5. Conditions for Proposal**

- 5.1 The Bidder shall provide an installation and completion timetable.
- 5.2 Proposal should describe system for data storage, data backup and data restoration.
- 5.3 Proposal should describe the data security practices used to safeguard of data.
- 5.4 Bidder should have more than 05 years' experience in developing and servicing the software in Aviation related examination system.
- 5.5 Bidder should forward the proposal with proof of development of at least 5 years similar software development experiences (private or government) and respective contact information for the verification purposes.
- 5.6 Late proposals will not be considered.
- 5.7 All costs incurred in the preparation of a proposal responding will be the responsibility of the bidder and will not be reimbursed by CAASL
- 5.8 The bidder shall provide a question bank and related reference material of EASA, CAA UK, FAA to conduct FCL examinations indicated in IS 72.
- 5.9 The bidder shall provide regular updates to question bank and related reference material.
- 5.10 The bidder shall be able to develop examinations to cover requirement given in IS 72.
- 5.11 The bidder should provide 24/7 technical assistance and a SLA (Service Level Agreement).

## **6 Maintenance of the system**

- 6.1 The Bidders should provide necessary technical support for 1 year period free of charge, from the date of signing the User Acceptance Letter. After one year the Bidders should sign for Service Level Agreement (SLA) for technical support

## **7 Preparation of Bids**

- 7.1 The bid shall comprise the following.  
The bid Submission Form using the form furnished in Annex IX. (This form should be completed without any alterations to its format and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested)
- 7.2 Bidders are required to present a breakdown of the cost as bellow.
- 7.2.1 Development cost.
  - 7.2.2 Training.
  - 7.2.3 Maintenance and update the implementing platform.
  - 7.2.4 Maintenance Services cost for 5 years
  - 7.2.5 VAT shall be indicate separate column.
- 7.3 Price and Discounts.
- 7.3.1 Unless specifically stated in the Data Sheet, all items must be priced separately in the Price Schedules.
  - 7.3.2 The price to be quoted in the Bid Submission Form shall be the total price of the Bid, including any discounts offered.
  - 7.3.3 The applicable VAT shall be indicated separately:
  - 7.3.4 Prices quoted by the Bidder shall be fixed during the Bidder's performance of the Contract and not subject to variation on any account. A bid submitted with an adjustable price shall be treated non responsive and may be rejected.
  - 7.3.5 The Bidders shall quote only in Sri Lankan Rupees.
- 7.4 Documents to Establish the Conformity of the ESPL.
- 7.4.1 The Bidder shall furnish as Part of its bid the documentary evidence that the System conformed to the technical specific Specifications & Compliance with specifications.
  - 7.4.2 The documentary evidence may be in the form of literature, drawings or data, and shall consist of a detailed item by item description of the essential technical and performance characteristics of the system, demonstrating substantial responsiveness of the system to the technical Specifications, and if applicable, a statement of deviations and exception to the provisions of the technical specifications given.
  - 7.4.3 If stated in the Data Sheet the Bidder shall submit a certificate from the manufacturer to demonstrate that it has been duly authorized by the Provider of the System.
  - 7.4.4 Period of Validity of Bid;  
Bids shall remain valid for the period of Ninety (90) days after the bid submission deadline date.
  - 7.4.5 Format and signing of Bid;  
The bid shall be typed in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder.

7.4.6 Submission and Opening of Bid;

Bidders may submit their bids by Registered mail or by hand in sealed envelope addressed to the CAASL indicated in the “Data Sheet” bearing the specific identification of the contract number.

7.4.7 If the bid is not sealed and marked as required, the CAASL will assume no responsibility for the misplacement or premature opening of the bid.

7.4.8 Bids must be received by the CAASL at the address set out in Annex -II “Data Sheet”, and no later than the date and time specified in the Data Sheet.

7.4.9 The CAASL shall reject any bid that arrives after the deadline for submission of bids.

7.4.10 The CAASL shall conduct the opening of bids in public at the address, date and time in the Data Sheet.

7.4.11 A representative of the bidders may be present and mark their attendance.

7.4.12 Documents to be submitted;

Following documents need to be submitted along with the proposals in formats given in Annexures. All the documents should be signed by the Authorized Signatory/s and placed official stamp and date.

Annex II		-	Data sheet
Annex III		-	Schedule of price Bid
Annex IV		-	Assignments of similar nature successfully completed during last 05 years
Annex V		-	Work Plan Time Schedule
Annex VI		-	Approach and Methodology
Annex VII		-	Composition of the Team Personnel and the task/s which would be assigned to each Team Member
Annex VIII		-	Format of Curriculum Vitae for members of Bidder’s Team
Annex IX		-	Work Programme and Time Schedule for Key Personnel
Annex X		-	Format for Bid Security
Annex XI		-	Format for Performance Bond

## **8 Ownership of the System**

- 8.1 The Bidders should provide soft copies of all source codes, databases, graphics, design documentations and other related documents used in the system to the CAASL.
- 8.2 If required third party software or licenses (ex: SSL certifications) need to purchase under CAASL ownership.
- 8.3 Any proprietary software components belonging to the system development company shall be licensed to Bidder for perpetual use. The Bidders shall require making appropriate arrangements to make available the source code of the said proprietary software to the CAASL in the event of either bankruptcy or winding up or merger of the Bidders Company.
- 8.4 System super admin account details and password should be handed over to the CAASL after signing off. The passwords can be obtained from CAASL during maintenance period.

## **9 Cost breakdown**

Bidders are required to present a breakdown of the cost as bellow.

- i. Cost of Software
- ii. Development / Integration with CAASL's finance system
- iii. Development / Integration with other systems (depend on Bidder's requirement eg: Airline, Ground handler etc.)
- iv. Maintenance Services cost for 5 years
- v. Training

## **10 Evaluation of the Bid.**

- 10.1 To assist the examination, evaluation and comparison of the bids, the CAASL may, at its discretion, ask any Bidder for a clarification of its bid through Procurement Committee. Any clarification submitted by a Bidder in respect of its bid which is not in response to a request by the CAASL shall not be considered.
- 10.2 The CAASL's request for clarification and the response shall be in writing.
- 10.3 The CAASL will determine the responsiveness of the bid with the documents based on the contents of the bids received.
- 10.4 If a bid is evaluated as not substantially responsive to the documents issued, it may be rejected by the CAASL.
- 10.5 The CAASL shall only evaluate bids that has been determined to be substantially responsive.
- 10.6 To evaluate the Bid the purchase may consider the following
  - 10.6.1 The price as quoted.
  - 10.6.2 Price adjustments for correction of arithmetical errors.
  - 10.6.3 Price adjustments due to discounts offered.

- 10.7 The Purchase's evaluation of a bid may require the consideration of other factors, in addition to the price quoted if stated in Annex II - Data Sheet. These factors may be related to the characteristics, performance, and terms and conditions of purchase of the system of ESPL.
- 10.8 The CAASL reserves the right to accept or reject all bids at any time prior to acceptance of procurement committee, without thereby incurring any liability to bidders.
- 10.9 From the time the Proposals are opened to the time the Contract is awarded, the Bidders should not contact the CAASL on any matter related to its Technical and/or Financial Proposal. Any effort by Bidders to influence the CAASL in the examination, evaluation, ranking of Proposals, and recommendation for award of Contract may result in the rejection of the Bidders' Proposal. Evaluators of Technical Proposals shall have no access to the Financial Proposals until the technical evaluation is concluded.
- 10.10 The CAASL shall evaluate the Technical Proposals on the basis of their responsiveness to the Terms of Reference, applying the evaluation criteria, sub criteria, and point system specified in the Evaluation Sheet. Each responsive Proposal will be given a technical score (St). A Proposal shall be rejected at this stage if it does not respond to important aspects of the bid document, and particularly the Terms of Reference or if it fails to achieve the minimum technical score indicated as follows:

Criteria for evaluation of Examination System			
No	Method/Criteria for evaluation of Examination System Developer	Point	Remarks
<b>1</b>	<b>Identification of CAASL Requirements &amp; Timely delivery</b>		
1.1	Time plan (Delivery to CAASL)	1	
1.2	Clear understanding & Identification of CAASL requirement for Automation including identification of data sources needed	2	
<b>2</b>	<b>Experience of the Bidder</b>		
2.1	Recent 5 years' experience in similar nature software development. Each year one mark and maximum 5.	5	
2.2	Past experience on online/offline examination system development or system support. Each successful development one mark and maximum 5 marks.	5	
2.3	Past experience in setting of examination system for Aviation Authorities – 5 marks	5	
2.4	Well educated and experienced (more than 2 years' experience in the field) Project team allocation. Designated Software Engineers – PHP, Designated Engineers – UI one mark for each. Project Manager 2 marks. Maximum 5 marks.	5	
<b>3</b>	<b>Proposed System by the Bidder</b>		
3.1	Online examination booking system, Online registration - 3, Email verification -1, responsive design -1, booking calendar – 3, booking management – 3, User booking and profile – 3, password reset and forgot password-2, Booking confirm email by system -1, integrate with payment system - 3	20	
3.2	Exam Management System – Subject wise and chapter wise question management - 0.5 , Questions add/remove/update – 0.5, statistical analysis report 1, Countdown timer with close and submit exam paper after reach available time – 0.5, Print and display result to admin – 1, print answer sheet -0.5, Full documentation including all system design and user manuals – 1, Providing a question bank & updates – 10, Providing reference materials and updates 10	25	
3.3	Computer based Examination Delivery System – Biometric identification – 5, Facilitate to 25 or more than clients at once – 3, Facilitate to conduct more than 25 exams papers at once – 3, Question reliability analysis – 4.	15	
3.4	User friendly interface	5	
3.5	High Security of the system. Proposal included security method plan to implement in system. Each method 1 and max 5 marks.	5	
3.6	Ability to Integrate with other systems in the CAASL	2	
<b>4</b>	<b>Support &amp; Maintenance</b>		
4.1	24/7 support & maintenance - Clear Explanation of the process	2.5	
4.2	Warranty Period - Minimum of five years (0.5 for each year)	2.5	
	<b>Total</b>	<b>100</b>	

- Note :
1. Bidders should obtain minimum of 70 marks to qualify for the financial consideration
  2. Final Analysis- 80% on Technical matters and 20% on financial matters
  3. Above requirements in the marking scheme should be reflected in the documents submitted and further explained and clarified through a presentation



## **11 Award of Contract.**

- 11.1 The CAASL will award the contract to the substantially responsive bidder.
- 11.2 Prior to the expiration of the period of validity of bid, the CAASL will notify the successful Bidder, in writing, that the tender has been awarded.
- 11.3 The successful bidder shall submit an unconditional performance bond of 10% of the total contract value from a reputed bank approved by Central Bank of Sri Lanka valid up to one year period from the date of awarding of the contract. This performance bond shall be submitted within 10 working days from the date of awarding the contract with the letter of acceptance of the contract.
- 11.4 The successful bidder shall sign an agreement with the CAASL for the supply of system for ESPL.
- 11.5 Failure of the successful Bidder to submit the abovementioned Performance bond or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security or execution of the Bid Securing Declaration. In that event the CAASL may award the Contract to the next lowest evaluated Bidder, whose offer is substantially responsive and is determined by the CAASL to be qualified to perform the Contract satisfactorily.

## **12 The Submission of Bids**

- 12.1 Bids are required to be submitted both Technical and Financial proposals in a sealed envelope separately to be received by Chairman, Departmental Procurement Committee, Civil Aviation Authority of Sri Lanka, No. 152/1, Minuwangoda Road (Opposite Radar hill), Katunayake before 14.00 hrs on 09<sup>th</sup> March 2022.
- 12.2 The proposal must be signed by an individual authorized to contractually bind the company and must state the name, title, address, phone number, Fax and Email address of a contact person who is authorized to provide clarification of the proposal if necessary.
- 12.3 Bid should be submitted as two sets in separate sealed envelopes which marked with “Original” and “Duplicate” on the top left corner of the envelop, together with the subject “Request for Proposal to Implement Online Exam Booking System with Collaborated Computer Based Examination System.”
- 12.4 Bid documents which are submitted after the above mentioned time period will be labeled as “Late submission” and it will not be accepted.
- 12.5 All costs incurred in the preparation of a proposal responding will be the responsibility of the bidder and will not be reimbursed by CAASL.

## **13 Public opening of financial proposals**

After the technical evaluation is completed, the CAASL shall notify those Bidders whose Proposals did not meet the minimum qualifying mark or were considered non responsive to the bid, that their Financial Proposals will be returned unopened after completing the selection process. The Bidders that have secured the minimum qualifying mark will be informed in writing the date, time and location for opening the Financial Proposals. The opening date should allow Bidders sufficient time to make arrangements for attending the opening.

Bidders’ attendance at the opening of Financial Proposals is optional.

## 14 Payment procedure

All payments are linked with the deliverables made by the Bidders. The payment will be released according to the submission and acceptance of deliverables as follows. 10% of retention will be deducted from each interim payment up to the maximum of 5% of the total cost. This will be retained in CAASL for one year period,

<b>Payment No</b>	<b>Percentage of Payment</b>	<b>Time frame</b>	<b>Applicable requirements</b>
Mobilization Advance	20	At the commencement of assignment after signed the agreement	Subject to the submission of advance guarantee bond
1st Interim payment	30 (1/3 of mobilization advance will be deducted)	As per the agreement	At the acceptance of System Requirements Specifications Document (SRS)
2nd Interim payment	30 1/3 of mobilization advance will be deducted)	As per the agreement	After handed over the test run period
Final Payment	40 (1/3 of mobilization advance will be deducted)	After 12 weeks of commencement of the assignment	At the completion of project after sign user acceptance agreement

## ANNEX I

### SUBJECTS/ LENGTH OF EXAMINATIONS & DISTRIBUTION OF QUESTIONS

#### 1. Flight Crew Licence Examination

##### A. PPL Examination

###### Subjects

Applicants for PPL (A) will be required to pass ground examination in the following subjects.

	Theory Subject	Duration (6 hrs)	No. of Questions
1	Air Law, ATC Procedures & Operational Procedures	01hr & 15 min.	45 (30 +15)
2	Aircraft General Knowledge & Principles of Flight	01hr & 15 min.	40 (15 + 25)
3	Flight Performance and Planning	01 hr	30
4	Human Performance and Limitations	30 min.	20
5	Meteorology	30 min.	20
6	Navigation & Communication Theory	01 hr & 30 min	45 (30 + 15)

###### Syllabus

Syllabus and Learning Objectives as per the attachment (G) of SLCAP 3080.

###### Examination Entry conditions

An applicant will be eligible to sit for the examination by fulfilling the requirements of SLCAP 3080.

###### Pass standards

- 1) Pass mark will be 75% and no minus marks will be given for incorrect answers.
- 2) Applicant should sit all the theory subjects in one and the same sitting initially and pass at least four subjects. Inability to achieve this would require the applicant to repeat the entire examination.
- 3) Applicant will be deemed to have successfully completed the PPL (A) theoretical knowledge examination when awarded a pass in all six subjects within a period of 18 months counted from the end of the calendar month when the applicant first attempted the examination.
- 4) If an applicant couldn't complete his/her examination during the period mentioned in paragraph "3)" above he/she shall re-sit all theory subjects. Before re-sitting the

examination the applicant shall undertake further training as determined by the school and approved by the DGCA.

- 5) A pass in the theoretical knowledge examination will be accepted for the grant of the PPL (A) during the period of 2 years from the date the applicant has successfully completed the theoretical knowledge examination.

#### Exemption from Ground Examinations

Exemption from having to take certain of the Ground Examinations may be given according to SLCAP 3080.

### **B. CPL Examination**

Subjects -Applicants for CPL (A) will be required to pass ground examination in the following subjects

	Theory Subject	Duration (12hrs & 15min)	No. of questions
1	Air law & Operational Procedures	01 hr & 30 min. (45 + 45 min)	63 (33 + 30)
2	Aircraft General Knowledge, Principle of Flight <i>Part 01 -Airframe/Systems/ Power plant</i> <i>Part 02 - Instrument/electronics</i> <i>Part 03 - Principles of Flight (A)</i>	03 hrs 15 min. ( 1 hr. 30 min.) ( 1 hr. ) (45 min)	133 60 40 33
3	Flight Performance & Planning <i>Part 01 - Mass and balance</i> <i>Part 02 - Performance(A)</i> <i>Part03- Flight planning and monitoring</i>	03 hrs. 15 min. (1 hr.) (45 min.) (1 hr. 30 min.)	83 25 25 33
4	Human Performance & Limitations	45 min.	36
5	Meteorology	01 hr. 30 min.	63
6	Navigation <i>Part 01 - General Navigation</i> <i>Part 02 - Radio Navigation</i>	01 hr. 30 min ( 1 hr.30 min.) ( 30 min.)	67 (45) (22)
7	Communication (VFR)	30 min	24

#### Syllabus

Syllabus and Learning Objectives as per the attachment (G)

#### Examination Entry conditions

An applicant will be eligible to sit for the examination by fulfilling the requirements of SLCAP 3080.

### Pass Standards

- 1) Pass mark will be 75% and no minus marks will be given for incorrect answers.
- 2) Applicant shall sit all the theory subjects in one and the same sitting initially and pass at least four subjects. Inability to achieve this would require the applicant to repeat the entire examination.
- 3) Examinations are to be done in accordance with IS 72.
- 4) Applicant will be deemed to have successfully completed the CPL (A) theoretical knowledge examination when awarded a pass in all of the required subjects in six attempts within a period of 18 months counted from the end of the calendar month when the applicant first attempted the examination.
- 5) If an applicant couldn't complete his/her examination during the period mentioned at paragraph "4)" he/she shall re-sit all theory subjects. Before re-sit the examinations the applicant shall undertake further training as determined by the school and approved by the DGCA.
- 6) A pass in the theoretical knowledge examination will be accepted for the grant of the CPL (A) during the period of 3 years from the date applicant has successfully completed the theoretical knowledge examination.

### Exemption from Ground Examinations

Exemption from having to take certain of the Ground Examinations may be given according to 3.7 of SLCAP 3080.

### **C. CPL/IR Examination**

Applicants for CPL/IR (A) will be required to pass ground examination in the following subjects.

	Subject	Duration (14hrs & 20min)	No. Of Questions
1	Air law & Operational Procedures	01hr & 40 min. (55 min + 45 min)	70 (40 +30)
2	Aircraft General Knowledge, Principle of Flight <i>Part 01 -Airframe/Systems/Power plant</i> <i>Part 02 – Instrument/electronics</i> <i>Part 03 – Principle of Flight</i>	03 hrs 15 min.  ( 1 hr. 30 min.) ( 1 hr. ) (45 min)	133  60 40 33
3	Flight Performance & Planning <i>Part 01 – Mass and balance</i> <i>Part 02 – Performance Part03–Flight planning and Monitoring</i>	03 hrs. & 45 min. (1hr.) (45 min.) (2 hrs. )	93 25 25 43
4	Human Performance & Limitations	45 min.	36
5	Meteorology	01 hr. 30 min.	63

6	Navigation <i>Part 01 – General Navigation</i> <i>Part 02 – Radio Navigation</i>	02 hrs. 45 min ( 1 hr.30min.) ( 1hr. 15min. )	91 (45) (46)
7	Communication	40 min.	26

### Syllabus

Syllabus and Learning Objectives as per the attachment (G) of SLCAP 3080.

### Examination Entry conditions

An applicant will be eligible to sit for the examination by fulfilling the requirements of SLCAP 3080

### Pass Standard

- 1) Pass mark will be 75% and no minus marks will be given for incorrect answers.
- 2) Applicant shall sit all the theory subjects in one and the same sitting initially and pass at least four subjects. Inability to achieve this would require the applicant to repeat the entire examination.
- 3) Examinations to be done in accordance with IS 72.
- 4) Applicant will be deemed to have successfully completed the CPL/IR (A) theoretical knowledge examination when awarded a pass in all of the required subjects in six attempts within a period of 18 months counted from the end of the calendar month when the applicant first attempted the examination.
- 5) If an applicant couldn't complete his/her examination during the period mentioned at paragraph "4)" above he/she shall re-sit all theory subjects. Before re-sit the examinations, the applicant shall undertake further training as determined by the school and approved by the DGCA.
- 6) A pass in the theoretical knowledge examination will be accepted for the grant of the CPL (A)/IR during the period of 3 years from the date the applicant has successfully completed the theoretical knowledge examination.

### Exemption from Ground Examinations

Exemption from having to take certain of the Ground Examinations may be given according to SLCAP 3080

### **D. ATPL/A Examination**

Applicants for ATPL (A) will be required to pass ground examination in the following subjects.

	Subject	Duration (17hrs & 55min)	No. of Questions
1	Air law & Operational Procedures <i>Part 01- Air law</i> <i>Part 02- Operational Procedures</i>	02 hrs. 15 min. <i>1hr</i> <i>1 hr. 15 min.</i>	89 (44) (45)

2	Aircraft General Knowledge, Principle of Flight <i>Part01-Airframe/Systems/Power plant</i> <i>Part 02- Instruments/ Electronics</i> <i>Part 03- Principles of Flight</i>	04 hrs. & 30 min  (2 hrs) (1hr & 30 min) 1hr	184  (80) (60) (44)
3	Flight Performance & Planning <i>Part 01- Performance,</i> <i>Part 02- Mass &amp; Balance</i> <i>Part03–Flight Planning and Monitoring</i>	04hrs (1hr) (1hr) (2 hrs)	103 (35) (25) (43)
4	Human Performance & Limitations	01 hr.	48
5	Meteorology	02 hrs	84
6	Navigation <i>Part 01 - General Navigation</i> <i>Part 02 – Radio Navigation</i>	03 hrs. & 30 min (2hrs) (1hr & 30 min)	126 (60) (66)
07	Communication	40 min.	26

### Syllabus

Syllabus and Learning Objectives as per the attachment (G)

### Examination Entry conditions

An applicant will be eligible to sit for the examination by fulfilling the requirements of SLCAP 3080

### Pass Standard

- 1) Pass mark will be 75% and no minus marks will be given for incorrect answers.
- 2) Applicant shall sit all the theory subjects in one and the same sitting initially and pass at least four subjects. Inability to achieve this would require the applicant to repeat the entire examination
- 3) Examinations are to be completed as per conditions of IS 72.
- 4) Applicant will be deemed to have successfully completed the ATPL (A) theoretical knowledge examination when awarded a pass in all of the required subjects in six attempts within a period of 18 months counted from the end of the calendar month when the applicant first attempted the examination.
- 5) If an applicant couldn't complete his/her examination during the period mentioned at paragraph "4)" above he/she shall re-sit all theory subjects. Before re-sit the examinations the applicant shall undertake further training as determined by the school and approved by the DGCA
- 6) A pass in the theoretical knowledge examination will be accepted for the grant of the ATPL (A) during the period of 7 years from the last validity date of the Instrument Rating entered in the Commercial Pilot Licence for the issuance of an ATPL

### Exemption from Ground Examinations

Exemption from having to take certain of the Ground Examinations may be given according to SLCAP 3080

## E. Instrument Rating (Aeroplane/Helicopter) ground examinations/IR(A/H)/IR (A/H)

The applicant for a IR/(A/H) Examination shall demonstrate to the DGCA a level of theoretical knowledge appropriate to the privileges be granted to the holder of an Instrument (Aeroplane/Helicopter). IR (A/H) examination

### E.1 For Private Pilot Licence holders as per following subjects.

	Subject	Duration (6hrs & 30 min.)	No. of questions
1	Air law	45 min.	33
2	Aircraft General Knowledge <i>Instrument/electronics</i>	30 min.	20
3	Flight Performance & Planning <i>Flight planning and Monitoring</i>	01 hr. 30 min.	33
4	Human Performance & Limitations	45 min.	36
5	Meteorology	01 hr. 30 min.	63
6	Navigation <i>Radio Navigation</i>	01hr	44
7	Communication – <i>IFR</i>	30 min.	24

### E.2 For Commercial Pilot Licence holders one composite paper as per following subjects.

	Subject	Duration (hrs & min.)	No. of questions
1	<b>Composite Paper</b> <i>Air law</i> <i>Flight planning and Monitoring</i> <i>Radio Navigation Communications –</i> <i>IFR</i>	<b>1 hr. 15 min.</b> <i>(10 min.)</i> <i>(27 min.)</i> <i>(34 min.)</i> <i>(4 min.)</i>	<b>45</b> <i>(7)</i> <i>(10)</i> <i>(25)</i> <i>(03)</i>

#### Syllabus

Syllabus and Learning Objectives as per the attachment (G)

#### Examination Entry conditions

An applicant will be eligible to sit for the examination by fulfilling the requirements of SLCAP 3080

#### Pass Standard

- 1) Pass mark will be 75% and no minus marks will be given for incorrect answers.
- 2) Applicant holding PPL (A/H) shall sit all the theory subjects in one and the same sitting initially and pass at least four subjects. Inability to achieve this would require the applicant to repeat the entire examination.



- 3) Applicant will be deemed to have successfully completed the IR (A/H) theoretical knowledge examination when awarded a pass in all of the required subjects in six attempts within a period of 18 months counted from the end of the calendar month when the applicant first attempted the examination.
- 4) If an applicant couldn't complete his/her examination during the period mentioned at paragraph "3)" above he/she shall re-sit all theory subjects. Before re-sit the examinations the applicant shall undertake further training as determined by the school and approved by the DGCA.
- 5) A pass in the theoretical knowledge examination will be accepted for the grant of the IR (A/H) during the period of 3 years from the date applicant has successfully completed the theoretical knowledge examination.

#### Exemption for Ground Examinations

No exemptions for the Instrument Rating ground examinations

#### **F. Private Pilot Licence (Helicopter) ground examinations / PPL (H)**

Applicants for PPL (H) will be required to pass ground examination in the following subjects.

	Theory Subject	Duration (6 hrs)	No of Questions
1	Air Law, ATC Procedures & Operational Procedures	01hr & 15 min.	45(30 +15)
2	Aircraft General Knowledge & Principles of Flight	01hr & 15 min.	40 (15 + 25)
3	Flight Performance and Planning	01 hr	30
4	Human Performance and Limitations	30 min.	20
5	Meteorology	30 min.	20
6	Navigation & Communication Theory	01 hr & 30 min	45 (30 + 15)

#### Syllabus

Syllabus and Learning Objectives as per the attachment (G)

#### Examination Entry conditions

An applicant will be eligible to sit for the examination by fulfilling the requirements of SLCAP 3080

#### Pass Standard

- 1) Pass mark will be 75% and no minus marks will be given for incorrect answers.

- 2) Applicant should sit all the theory subjects in one and the same sitting initially and pass at least four subjects. Inability to achieve this would require the applicant to repeat the entire examination.
- 3) Applicant will be deemed to have successfully completed the PPL (H) theoretical knowledge examination when awarded a pass in all six subjects within a period of 12 months counted from the end of the calendar month when the applicant first attempted the examination.
- 4) If an applicant couldn't complete his/her examination during the period mentioned in paragraph "3)" above he/she shall re-sit all theory subjects. Before re-sitting the examination the applicant shall undertake further training as determined by the school.
- 5) A pass in the theoretical knowledge examination will be accepted for the grant of the PPL (H) during the period of 2 years from the date the applicant has successfully completed the theoretical knowledge examination.

#### Exemption from Ground Examinations

Exemption from having to take certain of the Ground Examinations may be given according to SLCAP 3080

#### **G. Commercial Pilot Licence (Helicopter) ground examinations / CPL (H)**

Applicants for CPL (H) will be required to pass ground examination in the following subjects.

	Theory Subject	Duration (13hrs)	No. of questions
1	Air law & Operational Procedures	01 hr & 30 min. (45 + 45 min)	63 (33 + 30)
2	Aircraft General Knowledge, Principle of Flight <i>Part 01 - Airframe/Systems/ Power plant</i> <i>Part 02 - Instrument/ electronics</i> <i>Part 03 - Principles of Flight (H)</i>	03 hrs 30 min.  (1 hr. 30 min.) ( 1 hr. ) (1 hr.)	144  60 40 44
3	Flight Performance & Planning <i>Part 01 - Mass and balance</i> <i>Part 02 – Performance(H)</i> <i>Part 03 - Flight planning and monitoring</i>	03 hrs. 15 min. (1 hr.) (45 min.) (1 hr. 30 min.)	78 25 20 33
4	Human Performance & Limitations	45 min.	36
5	Meteorology	01 hr. 30 min.	63
6	Navigation <i>Part 01 - General Navigation</i> <i>Part 02 - Radio Navigation</i>	02 hrs ( 1 hr.30 min.) ( 30 min.)	67 (45) (22)
7	Communication (VFR)	30 min	24

## Syllabus

Syllabus and Learning Objectives as per the attachment (G)

### Examination Entry conditions

An applicant will be eligible to sit for the examination by fulfilling the requirements of SLCAP 3080.

### Pass Standard

- 1) Pass mark will be 75% and no minus marks will be given for incorrect answers.
- 2) Applicant shall sit all the theory subjects in one and the same sitting initially and pass at least four subjects. Inability to achieve this would require the applicant to repeat the entire examination.
- 3) Examinations to be conducted in accordance with IS 72.
- 4) Applicant will be deemed to have successfully completed the CPL (H) theoretical knowledge examination when awarded a pass in all of the required subjects in six attempts within a period of 18 months counted from the end of the calendar month when the applicant first attempted the examination.
- 5) If an applicant couldn't complete his/her examination during the period mentioned at paragraph "4)" he/she shall re-sit all theory subjects. Before re-sit the examinations the applicant shall undertake further training as determined by the school and approved by the DGCA.
- 6) A pass in the theoretical knowledge examination will be accepted for the grant of the CPL (H) during the period of 3 years from the date applicant has successfully completed the theoretical knowledge examination.

### Exemption from Ground Examinations

Exemption from having to take certain of the Ground Examinations may be given according to 8.7 of SLCAP 3080

### **H. Airline Transport Pilot Licence (Helicopter)/ ATPL (H) ground examination**

Applicants for ATPL (H) will be required to pass ground examination in the following subjects.

	Subject	Duration (16hrs & 05min)	No. of questions
1	Air law & Operational Procedures <i>Part 01- Air law</i> <i>Part 02- Operational Procedures</i>	01 hrs. 45 min. <i>45min</i> <i>1 hr.</i>	71 (33) (38)
2	Aircraft General Knowledge, Principle of Flight <i>Part01-Airframe/Systems/Power plant</i> <i>Part 02- Instruments/ Electronics</i> <i>Part 03- Principles of Flight</i>	04 hrs. & 30 min  (2 hrs) (1hr & 30 min) <i>1hr</i>	184  (80) (60) (44)

3	Flight Performance & Planning <i>Part 01- Performance,</i> <i>Part 02- Mass &amp; Balance</i> <i>Part03– Flight Planning and Monitoring</i>	03hrs & 20 min (1hr) (1hr) (1 hrs & 30min)	93 (35) (25) (33)
4	Human Performance & Limitations	01 hr.	48
5	Meteorology	02 hrs	84
6	Navigation <i>Part 01 - General Navigation</i> <i>Part 02 – Radio Navigation</i>	03 hrs. (2hrs) (1hr )	104 (60) (44)
07	Communication	30 min.	24

### Syllabus

Syllabus and Learning Objectives as per the attachment (G) of SLCAP 3080

### Examination Entry conditions

An applicant will be eligible to sit for the examination by fulfilling the requirements of SLCAP 3080

### Pass standard

- 1) Pass mark will be 75% and no minus marks will be given for incorrect answers.
- 2) Applicant shall sit all the theory subjects in one and the same sitting initially and pass at least four subjects. Inability to achieve this would require the applicant to repeat the entire examination
- 3) Examinations to be completed in accordance to IS 72.
- 4) Applicant will be deemed to have successfully completed the ATPL (H) theoretical knowledge examination when awarded a pass in all of the required subjects in six attempts within a period of 18 months counted from the end of the calendar month when the applicant first attempted the examination.
- 5) If an applicant couldn't complete his/her examination during the period mentioned at paragraph "3)" above he/she shall re-sit all theory subjects. Before re-sit the examinations the applicant shall undertake further training as determined by the school and approved by the DGCA.
- 6) A pass in the theoretical knowledge examination will be accepted for the grant of the CPL (H) during the 36 month from the date of gaining a pass in all the required examination papers and will remain valid indefinitely towards the grant of the ATPL(H) provided that the applicant has a valid type rating entered in the CPL(H).

### Exemption from Ground Examinations

Exemption from having to take certain of the Ground Examinations may be given according to SLCAP 3080

applicants for ATPL/IR (H) will be required to pass ground examination in the following subjects.

**I. Airline Transport Pilot License/ Instrument Rating (Helicopter) ground examinations / ATPL/IR(H)**

	Subject	Duration (17hrs & 40mins)	No. of question
1	Air law & Operational Procedures <i>Part 01- Air law</i> <i>Part 02- Operational Procedures</i>	02 hrs. <i>1hr.</i> <i>1 hr.</i>	82 (44) (38)
2	Aircraft General Knowledge, Principle of Flight <i>Part01-Airframe/Systems/ Power plant</i> <i>Part 02- Instruments/ Electronics</i> <i>Part 03- Principles of Flight</i>	04 hrs. & 30 min (2 hrs) (1hr & 30 min) <i>1hr</i>	184 (80) (60) (44)
3	Flight Performance & Planning <i>Part 01- Performance, Part 02- Mass &amp; balance</i> <i>Part03–Flight Planning and Monitoring</i>	04hrs (1hr) (1hr) (2hrs)	103 (35) (25) (43)
4	Human Performance & Limitations	01 hr.	48
5	Meteorology	02 hrs	84
6	Navigation <i>Part 01 - General Navigation</i> <i>Part 02 – Radio Navigation</i>	03 hrs. & 30 min (2hrs) (1hr & 30 min )	126 (60) (66)
07	Communication Theory	40 min.	26

Syllabus

Syllabus and Learning Objectives as per IS 72.

Examination Entry conditions

An applicant will be eligible to sit for the examination by fulfilling the requirements in SLCAP 3080.

Pass Standard

- 1) Pass mark will be 75% and no minus marks will be given for incorrect answers.
- 2) Applicant shall sit all the theory subjects in one and the same sitting initially and pass at least four subjects. Inability to achieve this would require the applicant to repeat the entire examination
- 3) Examinations to be completed in accordance to IS 72.
- 4) Applicant will be deemed to have successfully completed the ATPL (H) theoretical knowledge examination when awarded a pass in all of the required subjects in six attempts within a period of 18 months counted from the end of the calendar month when the applicant first attempted the examination.
- 5) If an applicant couldn't complete his/her examination during the period mentioned at paragraph "4)" above he/she shall re-sit all theory subjects. Before re-sit the examinations the applicant shall undertake further training as Pass mark will be 75% and no minus marks will be given for incorrect answers.

- 6) Applicant shall sit all the theory subjects in one and the same sitting initially and pass at least four subjects. Inability to achieve this would require the applicant to repeat the entire examination
- 7) Examinations to be completed in accordance to IS 72..
- 8) A pass in the ATPL/IR (H) theoretical knowledge examination will remain valid for a period of 7 years from the last validity date of the IR (H) entered in the CPL (H) for the issuance of an ATPL (H).

#### Exemption from Ground Examinations

Exemption from having to take certain of the Ground Examinations may be given according to SLCAP 3080.

#### J. Assistance Flight Instructor (AFI) Examination.

This examination has one subject.

	Subjects	Duration	No of Questions
1	AFI	30 min	20

#### K. Conversion Examinations.

1. **Private Pilot Licence (Aeroplane/Helicopter) Theoretical Knowledge Examination – PPL(A/H).** This examination consists of two papers as follows.

	Paper Reference No	Paper Name	Duration (3 hrs & 35 min)	No. of Questions
1	PPL/A/C/010 PPL/H/C/010	<b>Air Law &amp; Operational Procedures (A/H)</b>	<b>01 hr &amp; 15 min</b> (01 hr +15 min)	<b>45</b> (30 + 15)
2	PPL/A/C/CP1 PPL/H/C/CP1	<b>Composite Paper -1 (A/H)</b> <i>Aircraft General Knowledge, Principle of Flight</i> <i>Flight Performance &amp; Planning</i> <i>Human Performance &amp; Limitations</i> <i>Meteorology</i> <i>Navigation</i>	<b>(2hrs &amp;20 min)</b> 40 min 30 min 15 min 15 min 40 min	<b>(70)</b> 20 15 10 10 15

2. **Commercial Pilot Licence (Aeroplane/Helicopter) Theoretical Knowledge Examination –CPL (A/H)**

This examination consists of four papers as follows

	Paper Reference No	Paper Name	Duration (6 hrs)	No of Questions
1	CPL/A/C/010 CPL/H/C/010	<b>Air law &amp; Operational Procedures (A/H)</b>	<b>01 hr &amp; 30 min.</b> (45 + 45 min)	<b>63</b> (33 + 30)
2	CPL/A/C/CP1 CPL/H/C/CP1	<b>Composite Paper-1(A/H)</b> <i>Mass and balance</i> <i>Performance</i> <i>Flight planning and monitoring</i>	<b>(1 hr &amp; 40 min)</b> 30 min 25 min 45 min	<b>(40)</b> 12 13 15
3	CPL/A/C/CP2 CPL/H/C/CP2	<b>Composite Paper-2</b> <i>Human Performance &amp; Limitations</i> <i>General Navigation</i> <i>Radio Navigation</i>	<b>(1 hr &amp; 20 min)</b> 20 min 45 min 15 min	<b>(45)</b> 15 20 10



**3. Commercial Pilot Licence/ Instrument Rating (Aeroplane/Helicopter) Theoretical Knowledge Examination – CPL/IR(A/H)**

This examination consists of four papers as follows.

**4. Airline Transport Pilot Licence (Aeroplane/Helicopter) Theoretical Knowledge Examinations – ATPL (A/H).**

This examination consists of four papers as follows

	<b>Paper Reference No</b>	<b>Paper Name</b>	<b>Duration (8hrs min) &amp; 45</b>	<b>No of Questions</b>
1	ATPL/A/C/010 ATPL/H/C/010	<b>Air law &amp; Operational Procedures (A/H)</b>	<b>02 hr &amp; 15 min.</b> (1hr+1hr 15min)	<b>89</b> (44+ 45)
2	ATPL/A/C/CP1 ATPL/H/C/CP1	<b>Composite Paper-1 (A/H)</b> <i>Mass and balance</i> <i>Performance</i> <i>Flight planning and monitoring</i>	<b>(2 hrs)</b> 30 min 30 min 60 min	<b>(50)</b> 12 17 21
3	ATPL/A/C/CP2 ATPL/H/C/CP2	<b>Composite Paper-2 (A/H)</b> <i>Human Performance &amp; Limitations</i> <i>General Navigation</i> <i>Radio Navigation</i>	<b>(2 hrs &amp; 15 min)</b> 30 min 60 min 45 min	<b>(85)</b> 23 30 32
4	ATPL/A/C/CP3 ATPL/H/C/CP3	<b>Composite Paper-3 (A/H)</b> <i>Instrument/electronics</i> <i>Principles of Flight</i> <i>Meteorology</i>	<b>(2 hrs &amp; 15 min)</b> 45 min 30 min 60 min	<b>(90)</b> 30 22 38

**Pass Standard**

- A pass in an examination paper will be awarded to an applicant achieving at least 75% of the marks allocated to that paper. There is no penalty marking.
- An applicant will be deemed to have successfully completed the required theoretical knowledge examination for the Private pilot licence when awarded a pass in all of the required papers within a period of 12 months counted from the end of the calendar month when the applicant first attempted an examination.
- An applicant will be deemed to have successfully completed the required theoretical knowledge examinations for the CPL, CPL/IR or ATPL when awarded a pass in all of the required papers within a period of 18 months counted from the end of the calendar month when the applicant first attempted an examination.
- An applicant shall re-enter the complete examination as though for an initial attempt if he has failed to pass any single examination paper within four attempts, or has failed to pass all papers within either six attempts or the period mentioned in paragraphs (b) & (c) above. Before re-entry to the examinations the applicant shall undertake further training as determined by the Authority.

**5. Hot Air Balloon Theoretical Knowledge Examination-**

The examination consists of one question paper as follows.

Paper Reference No	Paper Name	Duration	No of Questions
HPB/C/010	Air Law & Operational Procedures (A/H)	30 mins.	20



## ANNEX II

### DATA SHEET

<b>DATA SHEET</b>	
CAASL	The CAASL is Civil Aviation Authority of Sri Lanka (CAASL).
Less Compliance	The bidder shall quote for all the items specified in the price schedule.
Bid Submission address	Address for submission of Bids; Chairman, Departmental Procurement Committee, Civil Aviation Authority of Sri Lanka, No.152/1, Minuwangoda Road, Katunayake Sri Lanka
Deadline	Deadline for submission of bid is. Date 09 <sup>th</sup> March 2022 14.00hrs
Bid Opening Time	The bids will be opened at soon after the deadline close time.
Bid Opening Place	The bid shall be opened at the following address Ground Floor, “Piyapath” Conference Hall Civil Aviation Authority of Sri Lanka, No.152/1, Minuwangoda Road, Katunayake Sri Lanka
Other Factors	Other factors that will be considered for evaluation are as follows: The most substantially responsive bid will be selected which may not necessarily be the lowest bid but essentially abiding by the technical specification and other requirement specified.
Additional Documents	The Bidder shall submit the following additional documents Manufacturer / Agent / reselling authorization document If the bid is submitted by a party other than the manufacturer, such as an importer, a trader, an agent, who will act as the supplier or sign the contract, such bidders shall submit <ul style="list-style-type: none"> <li>• a statement by the manufacturer certifying that the bidder is authorized to offer system manufactured by him/her and the manufacturer will assume all warranty obligations,</li> <li>• Manufacturer's printed technical brochures</li> <li>• A copy of business registrations</li> </ul> Bidder should have more than 05 year experience in selling and servicing experiences.

## ANNEX III

### PRICE SCHEDULE

	Description of service/Activity	Qty.	Unit Price without Tax (LKR)	NBT (LKR)	VAT (LKR)	Total (LKR)
1.	Design and Development Online System					
2.	Design and Development of Examination system					
3.	Design and Development of Question Bank					
4.	Integrate with Finance System and Online payment system of CAASL					
5.	Quality Assurance					
6.	User Training					
7.	SSL certification – online booking system					
8.	Maintenance Services (Annual Maintenance Cost after completion of Warranty Period referred in below No. 10):					
	1 <sup>st</sup> year					
	2 <sup>nd</sup> year					
	3 <sup>rd</sup> year					
	4 <sup>th</sup> Year					
	5 <sup>th</sup> Year					
9.	<b>Total Price</b>					

Grand Total Price in Words:

.....  
 .....

10. Warranty Period \*(Minimum one year): .....

I hereby confirm that the above prices are final, and will not be subjected to further conditions and/or changes/amendments.

Signature of the Bidder: .....

Name: ..... Rubber Stamp: .....

Designation: ..... Company Name: .....

## ANNEX IV

### ASSIGNMENTS OF SIMILAR NATURE SUCCESSFULLY COMPLETED DURING LAST 5 YEARS

1. Brief Description of the Firm/Organization:
2. Outline of recent experience on assignments of similar nature:

S No.	Name of assignment	Name of project	Owner or sponsoring authority and name of contact person	Cost of assignment	Date of commencement	Date of completion	Was assignment satisfactorily completed
1	2	3	4	5	6	7	8

Note: Please attach certificates from the Organizations by way of documentary proof.

## ANNEX V

### WORK PLAN TIME SCHEDULE

Sl. No.	Item <sup>1</sup>	Week wise Program <sup>2</sup>												
		1st	2nd	3rd	4th	5th	6th	7th	8 <sup>th</sup>				12th	.....

1. Indicate all main activities of the assignment, including delivery of reports (e.g.: inception, interim, and final reports), and other benchmarks such as CAASL approvals. For phased assignments indicate activities, delivery of reports, and benchmarks separately for each phase.
2. Duration of activities shall be indicated in the form of a bar chart.

## ANNEX VI

### APPROACH AND METHODOLOGY

A short note outlining the various steps proposed in performing the assignment. (One or two pages)

## ANNEX VII

### COMPOSITION OF THE TEAM PERSONNEL AND THE TASK/S WHICH WOULD BE ASSIGNED TO EACH TEAM MEMBER

1. Technical/Managerial Staff

No.	Name	Position	Task assigned

2. Support Staff

No.	Name	Position	Task assigned

## ANNEX VIII

### FORMAT OF CURRICULUM VITAE FOR MEMBERS OF BIDDERS'S TEAM

1. Name:

2. Profession/

Present Designation:

3. Years with Firm/Organization: \_\_\_\_\_ Nationality:

4. Area of Specialization:

5. Proposed Position on Team:

6. Key Qualifications:

(Under this heading, give outline of staff member's experience and training most pertinent to assigned work on proposed team. Describe degree of responsibility held by staff member on relevant previous assignments and give dates and locations. Use up to half-a-page.)

7. Education:

(Under this heading, summarize college/university and other specialized education of staff member, giving names of schools/colleges, etc., dates attended and degrees obtained. Use up to a quarter page.)

8. Experience:

(Under this heading, list all positions held by staff member since graduation, giving dates, names of employing organization, title of positions held and location of assignments. For experience in last five years, also give types of activities performed and CAASL references, where appropriate. Use up to three quarters of a page.)

9. Languages:

(Indicate proficiency in speaking, reading and writing of each language by 'excellent', 'good' or 'poor'.)

Signature of Staff Member

Date:

## ANNEX IX

### WORK PROGRAM AND TIME SCHEDULE FOR KEY PERSONNEL WEEKS

Name of Bidders	Position	1	2	3	4	5	6	7	...	...	
<u>Total</u>											

Name of the Development	Duration	Full Time/Part Time
1.		
2		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

- Indicate whether full time or part time in the relevant field

## ANNEX X

### BID SECURITY (BANK GUARANTEE)

Form: Bid Security (Bank Guarantee)

(Enclosed in envelope marked, “Envelope 1 – Qualification & Experience –Technical Bid”)

Whereas, [name of Bidder] (hereinafter called “the Bidder”) has submitted his Bid dated ..... [Date] for providing Services for [name of Contract] (hereinafter called “the Bid”).

Know all people by these presents that We .....[name of Agency] having our registered office at .....[address] (hereinafter called “the Bank”) are bound unto .....[name of Employer] (hereinafter called “the Employer”) in the sum of Sri Lankan Rupees .....[The Bidder should insert the amount of the Guarantee in words and figures] for which payment well and truly to be made to the said Employer, the Bank binds itself, its successors, and assigns by these presents.

Sealed with the Common Seal of the said Bank this [day] day of [month], [year].

The conditions of this obligation are:

1. If, after Bid opening, the Bidder withdraws his Bid during the period of Bid validity specified in the Form of Bid; or
2. If the Bidder having been notified of the acceptance of his Bid by the Employer during the period of Bid validity:
  - a) fails or refuses to execute the Form of Agreement in accordance with the Instructions to Bidders, if required; or
  - b) fails or refuses to furnish the Performance Security, in accordance with the Instruction to Bidders; or
  - c) does not accept the correction of the Bid Price,

We undertake to pay to the Employer up to the above amount upon receipt of his first written demand, without the Employer’s having to substantiate his demand, provided that in his demand the Employer will note that the amount claimed by him/her is due to him/her owing to the occurrence of one or any of the three conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date [Usually 28 days after the end of the validity period of the Bid.] days after the deadline for submission of bids as such deadline is stated in the Instructions to Bidders or as it may be extended by the Employer, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank not later than the above date.

Date..... Signature of the Bank.....

Witness..... Seal.....

.....  
[Signature, name, and address]





## ANNEX XI

### FORM OF PERFORMANCE GUARANTEE (UNCONDITIONAL)

Number: .....

Date: .....

Sum Guaranteed: .....

To: ..... [name and address of Employer] (Herein after called and referred to as “the Employer”)

..... [address of Employer]

Whereas .....[name and address of Contractor] (hereinafter called “the Contractor”) has undertaken, in pursuance of Contract No. ....[Number] dated .....[date] to execute .....[name of Contract and brief description of Services] (hereinafter called “the Contract”);

And whereas it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract ;

And whereas we have agreed to give the Contractor such a Bank Guarantee;

Now therefore we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of Rupees ..... [amount of Guarantee] ..... [amount in words], such sum being payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of [amount of Guarantee] as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Services to be performed there under or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this Guarantee, and we hereby waive notice of any such change, addition, or modification.

This Guarantee shall be valid until a date 28 days from the date of issue of the Certificate of Completion.

Signature and seal of the Guarantor.....

Name of Bank.....

Address.....

Date.....

Witness .....



## ANNEX XII

### LETTER OF ACCEPTANCE

[Address]

[Date]

Dear Sir,

LETTER OF ACCEPTANCE .....

I am pleased to inform you that the Department Procurement Committee of the Civil Aviation Authority of Sri Lanka has decided to award the contract for ..... to ..... after the evaluating the bid dated .....that has been submitted by the ..... Of the grand total ..... (Excluding Taxes).

Accordingly ..... is hereby instructed to commence execution of the works specified in the bid document in accordance with the Contract Agreement which is to be entered between CAASL and .....

Please acknowledge the receipt of this Letter of Acceptance by signing and returning same to us duplicate copy of this letter within seven days of receipt.

Yours Faithfully,

Director General of Civil Aviation and  
Chief Executive Officer



## ANNEX XIII

### ACKNOWLEDGEMENT

#### Acknowledgement

We, the ....., hereby acknowledge the receipt of the letter of Acceptance for the  
'..... for Civil Aviation Authority of Sri Lanka  
under the terms and conditions stipulated therein.

For and behalf of the .....

Name and Signature .....

Designation .....

Address .....

.....

Date.....

Seal of the .....

#### Witness:

Name and Signature .....

Designation .....

Address .....

Date.....



## ANNEX XIV

### FORMAT OF CONTRACT AGREEMENT

THIS CONTRACT AGREEMENT is made

the [ insert: number ] day of [ insert: month ], [ insert: year ].

BETWEEN

(1) [ insert complete name of CAASL ], a [ insert description of type of legal entity, for example, an agency of the Ministry of ..... or corporation and having its principal place of business at [ insert address of CAASL ] (hereinafter called “the CAASL”), and

(2) [ insert name of Supplier ], a corporation incorporated under the laws of [ insert: country of Supplier ] and having its principal place of business at [ insert: address of Supplier ] (hereinafter called “the Supplier”).

WHEREAS the CAASL invited bids for certain Goods and ancillary services, viz., [insert brief description of Goods and Services] and has accepted a Bid by the Supplier for the supply of those Goods and Services in the sum of [insert Contract Price in words and figures, expressed in the Contract currency(ies) ] (hereinafter called “the Contract Price”).

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
2. The following documents shall constitute the Contract between the CAASL and the Supplier, and each shall be read and construed as an integral part of the Contract:
  - (a) This Contract Agreement
  - (b) Contract Data
  - (c) Conditions of Contract
  - (d) Technical Requirements (including Schedule of Requirements and Technical Specifications)
  - (e) The Supplier’s Bid and original Price Schedules
  - (f) The CAASL’s Notification of Award
  - (g) [Add here any other document(s)]



3. This Contract shall prevail over all other Contract documents. In the event of any discrepancy or inconsistency within the Contract documents, then the documents shall prevail in the order listed above.
4. In consideration of the payments to be made by the CAASL to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the CAASL to provide the Goods and Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
5. The CAASL hereby covenants to pay the Supplier in consideration of the provision of the Goods and Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of Democratic Socialist Republic of Sri Lanka on the day, month and year indicated above.

For and on behalf of the CAASL

Signed: [insert signature]

in the capacity of [ insert title or other appropriate designation ]

in the presence of [insert identification of official witness]

For and on behalf of the Supplier

Signed: [insert signature of authorized representative(s) of the Supplier]

in the capacity of [ insert title or other appropriate designation ]

in the presence of [ insert identification of official witness]