SLCAP 3070

CIVIL AVIATION AUTHORITY OF SRI LANKA

AIRCRAFT MAINTENACE LICENCE PROCEDURE MANUAL

MNL-66

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AIRCRAFT MAINTENACE LICENCE PROCEDURE MANUAL

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PERSONNEL LICENSING SECTION

LIST OF GUIDANCE MATERIAL ISSUED BY THE PERSONNEL LICENSING SECTION

		
PERSONNEL LICENSING PROCEDURES MANUAL(SLCAP 3010)		**MEDICAL PROCEDURES MANUAL (SLCAP 3020)**
		
PEL OFFICE PROCEDURES MANUAL (SLCAP 3030)		**ELPC PROCEDURES MANUAL (SLCAP 3040)**
		
FLIGHT TEST EXAMINERS MANUAL (SLCAP 3050)		**ATC LICENCE PROCEDURE MANUAL (SLCAP 3060)**
		
AIRCRAFT MAINTENACE LICENCE PROCEDURE MANUAL (SLCAP 3070)		**EXAMINATION PROCEDURES MANUAL (SLCAP 3080)**
		
APPROVED TRAINING ORGANIZATION CERTIFICATION MANUAL (SLCAP 3090)		**PERPATUAL LICENCE PROCEDURE MANUAL(SLCAP 3100)**

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Page Number	Effective Date
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ii	01.04.2018
iii	01.04.2018
iv	01.04.2018
v	01.04.2018
vi	01.04.2018
vii	01.04.2018
viii	01.04.2018
ix	01.04.2018
x	01.04.2018
xi	01.04.2018
xii	01.04.2018
xiii	01.04.2018
xiv	01.04.2018
xv	01.04.2018
I-1	01.04.2018
A-1	01.04.2018
A-2	01.04.2018
B-1	01.04.2018
B-2	01.04.2018
B-3	01.04.2018
B-4	01.04.2018
B-5	01.04.2018
B-6	01.04.2018
B-7	01.04.2018
C-1	01.04.2018
C-2	01.04.2018
C-3	01.04.2018
C-4	01.04.2018
C-5	01.04.2018
D-1	01.04.2018
D-2	01.04.2018
E-1	01.04.2018

Page Number	Effective Date
E-2	01.04.2018
F-1	01.04.2018
II-1	01.04.2018
1-1	01.04.2018
1-2	01.04.2018
2-1	01.04.2018
2-2	01.04.2018
2-3	01.04.2018
2-4	01.04.2018
2-5	01.04.2018
2-6	01.04.2018
2-7	01.04.2018
2-8	01.04.2018
2-9	01.04.2018
3-1	01.04.2018
3-2	01.04.2018
3-3	01.04.2018
3-4	01.04.2018
3-5	01.04.2018
3-6	01.04.2018
3-7	01.04.2018
3-8	01.04.2018
3-9	01.04.2018
3-10	01.04.2018
3-11	01.04.2018
3-12	01.04.2018
3-13	01.04.2018
3-14	01.04.2018
3-15	01.04.2018
3-16	01.04.2018
3-17	01.04.2018
3-18	01.04.2018
3-19	01.04.2018
3-20	01.04.2018
3-21	01.04.2018
4-1	01.04.2018

Page Number	Effective Date
4-2	01.04.2018
5-1	01.04.2018
5-2	01.04.2018
5-3	01.04.2018
6-1	01.04.2018
6-2	01.04.2018
6-3	01.04.2018
6-4	01.04.2018
6-5	01.04.2018
6-6	01.04.2018
6-7	01.04.2018
6-8	01.04.2018
6-9	01.04.2018
6-10	01.04.2018
6-11	01.04.2018
6-12	01.04.2018
6-13	01.04.2018
6-14	01.04.2018
6-15	01.04.2018
6-16	01.04.2018
6-17	01.04.2018
6-18	01.04.2018
6-19	01.04.2018
6-20	01.04.2018
6-21	01.04.2018
6-22	01.04.2018
6-23	01.04.2018
7-1	01.04.2018
7-2	01.04.2018
7-3	01.04.2018
7-4	01.04.2018
7-5	01.04.2018
7-6	01.04.2018
7-7	01.04.2018
7-8	01.04.2018
8-1	01.04.2018
Appendix-1	01.04.2018
Appendix-2	01.04.2018
Appendix-3	01.04.2018

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Appendix-4	01.04.2018

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FORWARD

Civil Aviation Authority of Sri Lanka being the regulatory body empowered to conduct certifications & surveillance on civil Aviation activities, it's Licensing Section is entrusted to conduct certification of personnel involved in these activities whose job functions require such certification to perform their jobs.

The South Asian Regional Initiative (SARI) forum has developed harmonized regulation SARI Part-66, for 'Aircraft Maintenance License (AML)', which is to be adopted by the Civil Aviation Authorities of SARI members State countries. Civil Aviation Authority of Sri Lanka (CAASL) has published this regulation into two separate documents.

a) **Section-A** of SARI Part-66 document is published as Implementing Standard 66 (hereinafter referred as IS-66) under the title 'Personnel Licensing Requirements -Aircraft Maintenance Licence'. IS-66 contains regulations that are applicable to the aviation industry.

b) **Section-B** of SARI Part-66 document is published as SLCAP 3070 **MANUAL-66 Part I** (hereinafter referred as MANUAL-66) under the title 'Aircraft Maintenance License Procedure Manual ".

This MANUAL-66 contains Aircraft Maintenance Licence Procedures for CAA Sri Lanka & Acceptable Means of Compliance of Section B to be followed by the CAASL and to deal with AML issued under IS-66 and the enforcement of Section A.

The MANUAL-66 has been divided into three parts.

PART I - Section B of IS-66.
PART II - Licensing Procedures follows by Licensing staff
PART III - Appendixes

The purpose of this manual is to provide necessary administrative guidelines based on the legal provisions in the Civil Aviation Act No 14 of 2010, and other operating regulations as amended from time to time, to personnel licensing staff involved in issuance, renewal and revalidation of licenses issued for the personnel, engaged in the aircraft maintenance.
This MANUAL-66 clearly stipulates guidelines for Licensing staff to follow the exact procedures how to work, by providing "easy to work" format in the form of a check list for every function of routine work concerning, issuance, renewal and revalidation of Aircraft Maintenance Licence handled by the section.

This Manual and associated Checklists and Forms, are derived from, and considered to be the official document of procedures approved which shall be used by the personnel licensing staff (Technical staff, Non-technical Staff, designated examiners) which to evaluate ,recommend , process and issue an AML .

Nothing in this publication is intended to conflict with Civil Aviation Act no 14 of 2010 and associated regulations, SLCAIS-66 and other applicable Implementing standards

published by CAA Sri Lanka which are current at the time off publication of this manual or other regulation which, in case of doubt, must be regarded as overriding. The MNL-66 has to be used in conjunction with IS 66. Moreover, it will be ensured that whenever there is any amendment in SARI Part-66 document, consequently, IS 66 or/and MNL-66 shall be amended accordingly.

In cases where the Implementation Procedures of the Regulations or the contents herein are not clear, require interpretation or the case in hand is not covered, please seek clarification from the immediate Supervisor. For this purpose, Deputy Director, the Head of Personnel Licensing Section of Civil Aviation Authority is considered as the Supervisor at the highest level.

This Manual (MANUAL 66) is approved by the Director General of Civil Aviation of Sri Lanka on the Powers vested by the Civil Avian Act No 14 of 2010, on the date indicated below for the use & guidance of all applicable personnel for its intended purpose.

This Authority may, without any prior notice, change the contents of this manual as appropriate, to suite the administrative requirements

H. M. C. Nimalsiri.
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01st April 2018.

ABBREVIATIONS

A/C		AirCraft
AAC		Asian Aviation Centre
AIC		Aeronautical Information Circular
AME(BL)		Aircraft Maintenance Engineer (Basic Licence)
AML		Aircraft Maintenance Licence
AMO		Approved Maintenance Organization
AMTO		Approved Maintenance Training Organization
ASN		Aviation Safety notice
AW		Airworthiness
AWX		Air Worthiness Expert
CAA		Civil Aviation Authority
CAASL		Civil Aviation Authority of Sri Lanka
D/FS		Director (Flight Safety)
D(TOPL)		Deputy Director (Personnel Licensing)
DGCA		Director General of Civil Aviation
EPM		Engineering Procedure Manual
EX		Expert
ICAO		International Civil Aviation Organization
IS		Implementing Standards
MCM		Maintenance Control Manual
MCQ		Multi Choice Question
MOE		Maintenance Organization Exposition
MQA		Manager Quality Assurance
MTOE		Maintenance Training Organization Exposition
NIC		National Identity Card
OPM		Office Procedure Manual
PART-M		Continuing Airworthiness Requirements
PART 145		Approved Maintenance Organizations
PART-147		Approved Maintenance Training Organizations
PEL		Personnel Licensing
SCAIPL		Senior Civil Aviation Inspector Personnel Licensing
SCAI(PLNFC)		Senior Civil Aviation Inspector Personnel Licensing (Non Flight Crew)
SCAIAW		Senior Civil Aviation Inspector Airworthiness
SLAL		Sri Lankan Airlines
QAM		Quality Assurance Manager
SLAL		Sri Lankan Air Lines
SLCAP		Sri Lanka Civil Aviation Publication
SOR		Scheme Of Recruitment
TTM		Technical Training Manager

TABLE OF CONTENTS

PART I

SECTION B – PROCEDURES FOR CAASL

PART I
SECTION B – PROCEDURES FOR CAASL

SUBPART A

GENERAL

66.B.05 Scope

This section establishes the procedures including administrative requirements to be followed by the CAASL in charge of the implementation and the enforcement of Section A of IS 66.

66.B.10 Competent authority

(a) General

DGCA Sri Lanka/CAASL shall establish an adequate organisational structure for issuance, continuation, conversion, suspension or revocation of aircraft maintenance licences and ensure compliance with IS 66 / MNL 66.

(b) Resources

DGCA Sri Lanka shall be appropriately staffed to ensure the implementation of the requirements of IS 66/ MNL 66.

(c) Procedures

DGCA Sri Lanka shall establish documented procedures detailing how compliance with IS 66 / MNL 66 is accomplished. The procedure shall be reviewed and amended ensure continued compliance.

66.B.15 Acceptable Means of Compliance

When the applicant for issuance, continuation, conversion, suspension or revocation of an aircraft maintenance licence uses the AMC of IS 66/ MNL 66, DGCA Sri Lanka shall consider the requirements of the rule as met.

66.B.20 Record-keeping

(a) DGCA Sri Lanka shall establish a system of record-keeping that allows adequate traceability of the process to issue, revalidate, change, suspend or revoke each aircraft maintenance license.

(b) The records shall include for each licence:

1. The application for an aircraft maintenance license or change to that license, including all supporting documentation;
2. A copy of the aircraft maintenance license including any changes;
3. Copies of all relevant correspondence;
4. Details of any exemption and enforcement actions;
5. Any report from other competent authorities relating to the aircraft maintenance license holder;
6. The records of examinations conducted by CAASL;
7. The applicable conversion report used for conversion;
8. The applicable credit report used for crediting;

(c) Records referred to in points 1 to 5 of point (b) shall be kept at least five years after the end of the licence validity.

(d) Records referred to in points 6,7 and 8 of point (b) shall be kept for an unlimited period.

AMC 66.B.20 Record-keeping

1. The record-keeping system should ensure that all records are accessible whenever needed within a reasonable time. These records should be organized in a consistent way throughout the tent authority (chronological, alphabetical order, etc.).

2. All records containing sensitive data regarding applicants or organisations should be stored in a secure manner with controlled access to ensure confidentiality of this kind of data.

3. All computer hardware used to ensure data backup should be stored in a different location from that containing the working data in an environment that ensures they remain in good condition. When hardware or software changes take place special care should be taken that all necessary data continues to be accessible at least through the full period specified in 66.B.20

66.B.25 Reserved

66.B.30 Exemptions

All exemptions granted in accordance with the applicable National Regulation shall be recorded and retained by DGCA SriLanka.

SUBPART B

ISSUE OF AN AIRCRAFT MAINTENANCE LICENSE (AML)

This Subpart provides the procedures to be followed by the DGCA Sri Lanka to issue change or continue an aircraft maintenance licence

66.B.100 Procedure for the issue of an aircraft maintenance license by DGCA, Sri Lanka

(a) On receipt of CAASL Form CAA/PL/I/08(Form 19) and any supporting documentation, CAASL shall verify Form CAA/PL/I/08(Form 19) for completeness and ensure that the experience claimed meets the requirement of IS 66.

(b) DGCA Sri Lanka shall verify an applicant's examination status and/or confirm the validity of any credits to ensure that all required modules of Appendix I to IS 66, have been met as required in IS 66.

(c) When having verified the identity and date of birth of the applicant and being satisfied that the applicant meets the standards of knowledge and experience required by IS 66, DGCA shall issue the relevant aircraft maintenance license to the applicant. The same information shall be kept on CAASL records.

CAASL staff shall follow the Initiation Process in PART II.

AMC 66.B.100 Procedure for the issue of an aircraft maintenance licence by the DGCA Sri Lanka

1. Applicants claiming the maximum reduction in 66.A.30(a) total experience based upon successful completion of a 147.A.200 approved basic training course should include the IS 147 certificate of recognition for approved basic training.

2. Applicants claiming reduction in 66.A.30(a) total experience based upon successful completion of training considered relevant by the CAASL as a skilled worker in a technical trade, should include the relevant certificate of successful completion of training.

3. Applicants claiming credit against the 66.A.30 (a) total experience requirement by virtue of 66.A.30(a) non-civil aircraft maintenance experience may only be granted such credit where the DGCA Sri Lanka has recognised such non-civil aircraft maintenance experience. The DGCA Sri Lanka in recognising non-civil aircraft maintenance experience should have specified who within the non-civil environment may make a statement that the applicant has met relevant maintenance experience. The applicant should include a detailed statement of such maintenance

experience signed by the non-civil maintenance authority in accordance with the conditions specified by the DGCA Sri Lanka.

4. The DGCA Sri Lanka should check that the experience record satisfies above paragraphs in terms of content and the countersigning signature.

NOTE: See AMC 66.B.100 to 115

66.B.105 Reserved

66.B.110 Procedure for the change of an aircraft maintenance license to include an additional basic category or subcategory

(a) At the completion of the procedures specified in point 66.B.100, DGCA Sri Lanka shall endorse the additional basic category or subcategory on the aircraft maintenance license by stamp and signature or reissue the license.

(b) CAASL record system shall be changed accordingly.

AMC 66.B.110 Procedure for the change of an aircraft maintenance licence to include an additional basic category or subcategory

In the case of computer-generated licences, the licence should be reissued.

NOTE: AMC 66.B.100 to 115

66.B.115 Procedure for the change of an aircraft maintenance license to include an aircraft rating or to remove limitations

(a) On receipt of a satisfactory CAASL Form 19 and any supporting documentation demonstrating compliance with the requirements of the applicable rating together with the accompanying aircraft maintenance licence, the DGCA Sri Lanka shall either:

1. Endorse the applicant's aircraft maintenance licence with the applicable aircraft rating; or
2. Reissue the said licence to include the applicable aircraft rating; or
3. Remove the applicable limitations in accordance with point 66.A.50 of IS 66.

The CAASL record system shall be changed accordingly.

(c) In the case where the On-the-Job Training is not required, the aircraft type rating shall be endorsed based on a Certificate of Recognition issued by a maintenance training organisation approved in accordance with IS 147.

(d) In the case where the aircraft type training is not covered by a single course, the DGCA Sri Lanka shall be satisfied prior to the type rating endorsement that the content and length of the courses fully satisfy the scope of the licence category

and that the interface areas have been appropriately addressed.

(e) In the case of differences training, the DGCA Sri Lanka shall be satisfied that:
(i) The applicant's previous qualification, supplemented by
(ii) Either a course approved in accordance with IS 147 or a course directly approved by the DGCA Sri Lanka, are acceptable for type rating endorsement.

(f) Compliance with the practical elements shall be demonstrated:
(i) By the provision of detailed practical training records or a logbook provided by a maintenance organisation appropriately approved in accordance with IS 145 or, where available.
(ii) By a training certificate covering the practical training element issued by a maintenance training organisation appropriately approved in accordance with IS 147.

(g) Aircraft type endorsement shall use the aircraft type ratings specified by the DGCA Sri Lanka.

AMC 66.B.115 Procedure for the change of an aircraft maintenance licence to include an aircraft rating or to remove limitations

(a) Where the type training has not been conducted by a Part-147 organisation, there should be supporting documents confirming to the DGCA Sri Lanka that:

- The type training has been approved by the DGCA Sri Lanka in accordance with 66.B.130,
- The applicant has completed the elements of the approved type training; and
- The trainee has been successfully examined/assessed.

(b) Aircraft type training may be subdivided in airframe and/or powerplant and/or avionics/electrical systems type training courses.
1. Airframe type training course means a type training course including all relevant aircraft structure and electrical and mechanical systems excluding the powerplant.
2. Powerplant type training course means a type-training course on the bare engine, including the build-up to a quick engine change unit.
3. The interface of the engine/airframe systems should be addressed by either airframe or powerplant type training course. In some cases, such as for general aviation, it may be more appropriate to cover the interface during the airframe course due to the large variety of aircraft that can have the same engine type installed.
4. Avionics/electrical systems type training course means type training on avionics and electrical systems covered by but not necessarily limited to ATA Chapters 22, 23, 24, 25, 27, 31, 33, 34, 42, 44, 45, 46, 73 and 77 or equivalent.

(c) For the acceptance of the OJT programme described in Section 6 of Appendix III to IS 66, the DGCA Sri Lanka should develop adequate procedures which may be similar to the procedure described in AMC 66.B.130 for the "direct approval of aircraft type training".

AMC 66.B.100 to 115

Aircraft type endorsement should use the standard codes contained in Appendix I to the AMCs of IS 66

66.B.120 Procedure for the renewal of an aircraft maintenance license validity

(a) DGCA Sri Lanka shall compare the holder's aircraft maintenance license with the CAASL records and verify any pending revocation, suspension or change action pursuant to Para 66.B.500. If the documents are identical and no action is pending pursuant to Para 66.B.500, the holder's copy shall be renewed for the further duration defined in the Licence issued by DGCA Sri Lanka and the file endorsed accordingly.

(b) If CAASL records are different from the aircraft maintenance license held by the license holder:

1. DGCA Sri Lanka shall investigate the reasons for such differences and may choose not to renew the aircraft maintenance license;

2. DGCA Sri Lanka shall inform the license holder and any known maintenance organisation approved in accordance with Part M Subpart F or SLCAIS-145 that may be directly affected of such fact.

3. DGCA Sri Lanka, if necessary, take action in accordance with point 66.B.500 to revoke, suspend or change the license in question.

AMC 66.B.120 Procedure for the renewal of an aircraft maintenance licence validity

The DGCA Sri Lanka should not carry out any investigation to ensure that the licence holder is in current maintenance practice as this is not a condition for the renewal of a licence. Ensuring the continued validity of the certification privileges is a matter for the approved IS 145 / Subpart-F maintenance organization or the certifying staff in accordance with M.A.801(b)2.

For the purpose of ensuring the continued validity of the certification privileges the DGCA Sri Lanka may, when periodically reviewing the organizations in accordance with 145.B.30 or M.B.604, or during on-the-spot checks, request the licence holder to provide documentary evidence of compliance with 66.A.20(b) of IS 66 when exercising certification privileges

66.B.125 Procedure for the conversion of licences including group ratings

(a) Individual aircraft type ratings already endorsed on the aircraft maintenance licence shall remain on the licence and shall not be converted to new ratings unless the licence holder fully meets the requirements for endorsement defined

in point 66.A.45 of this IS 66 for the corresponding group/sub-group ratings.

(b) The conversion shall be performed in accordance with the following conversion table:

1. For category B1 or C:

- Helicopter piston engine, full group: converted to “full sub-group 2c” plus the aircraft type ratings for those single piston engine helicopters which are in group 1;

- Helicopter piston engine, manufacturer group: converted to the corresponding “manufacturer sub-group 2c” plus the aircraft type ratings for those single piston engine helicopters of that manufacturer which are in group 1;

- Helicopter turbine engine, full group: converted to “full sub-group 2b” plus the aircraft type ratings for those single turbine engine helicopters which are in group 1;

- Helicopter turbine engine, manufacturer group: converted to the corresponding “manufacturer sub-group 2b” plus the aircraft type ratings for those single turbine engine helicopters of that manufacturer which are in group 1;

- Aeroplane single piston engine — metal structure, either full group or manufacturer group: converted to “full group 3”. For the B1 licence the following limitations shall be included: composite structure aeroplanes, wooden structure aeroplanes and metal tubing and fabric aeroplanes;

- Aeroplane multiple piston engines — metal structure, either full group or manufacturer group: converted to “full group 3”. For the B1 licence the following limitations shall be included: composite structure aeroplanes, wooden structure aeroplanes and metal tubing and fabric aeroplanes;

- Aeroplane multiple piston engines — metal structure, either full group or manufacturer group: converted to “full group 3”. For the B1 licence the following limitations shall be included: composite structure aeroplanes, wooden structure aeroplanes and metal tubing and fabric aeroplanes;

- Aeroplane single piston engine — wooden structure, either full group or manufacturer group: converted to “full group 3”. For the B1 licence the following limitations shall be included: metal structure aeroplanes, composite structure aeroplanes and metal tubing and fabric aeroplanes;

- Aeroplane multiple piston engine — wooden structure, either full group or manufacturer group: converted to “full group 3”. For the B1 licence the following limitations shall be included: metal structure aeroplanes, composite structure aeroplanes and metal tubing and fabric aeroplanes;

- Aeroplane single piston engine — composite structure, either full group or manufacturer group: converted to “full group 3”. For the B1 licence the following limitations shall be included: metal structure aeroplanes, wooden structure aeroplanes and metal tubing and fabric aeroplanes;

- aeroplane multiple piston engine — composite structure, either full group or manufacturer group: converted to “full group 3”. For the B1 licence the following limitations shall be included: metal structure aeroplanes, wooden structure aeroplanes and metal tubing and fabric aeroplanes;

- Aeroplane turbine — single engine, full group: converted to “full sub-group 2a” plus the aircraft type ratings for those single turboprop aeroplanes which did not require an aircraft type rating in the previous system and are in group 1;

- Aeroplane turbine — single engine, manufacturer group: converted to the corresponding “manufacturer sub-group 2a” plus the aircraft type ratings for those single turboprop aeroplanes of that manufacturer which did not require an aircraft type rating in the previous system and are in group 1;

- Aeroplane turbine — multiple engine, full group: converted to the aircraft type ratings for those multiple turboprop aeroplanes which did not require an aircraft type rating in the previous system.

2. For category B2:

- Aeroplane: converted to “full sub-group 2a” and “full group 3”, plus the aircraft type ratings for those aeroplanes which did not require an aircraft type rating in the previous system and are in group 1;

- Helicopter : converted to “full sub-groups 2b and 2c”, plus the aircraft type ratings for those helicopters which did not require an aircraft type rating in the previous system and are in group 1.

3. For category C:

- Aeroplane: converted to “full sub-group 2a” and “full group 3”, plus the aircraft type ratings for those aeroplanes which did not require an aircraft type rating in the previous system and are in group 1;

- Helicopter: converted to “full sub-groups 2b and 2c”, plus the aircraft type ratings for those helicopters which did not require an aircraft type rating in the previous system and are in group 1.

(c) If the licence was subject to limitations following the conversion process referred to in point 66.A.70 of IS 66, these limitations shall remain on the

licence, unless they are removed under the conditions defined in the relevant conversion report referred to in point 66.B.300.

66.B.130 Procedure for the direct approval of aircraft type training

The DGCA Sri Lanka may approve aircraft type training not conducted by a maintenance training organisation approved in accordance with *IS 147*, pursuant to point 1 of Appendix III to IS 66. In such case the DGCA Sri Lanka shall have a procedure to ensure the aircraft type training complies with Appendix III of IS 66.

AMC 66.B.130 Procedure for the direct approval of aircraft type training

1. The procedure for the direct approval of type training courses by DGCA Sri Lanka should require that the following aspects are described by the organisation providing the training:
   - The content and the duration of the theoretical and/or practical elements, as applicable, in accordance with Appendix III to IS 66, including the Training Need Analysis (TNA);
   - The teaching methods and instructional equipment;
   - The material and documentation provided to the student;
   - The qualification of instructors, examiners and/or assessors, as applicable;
   - The examination and/or assessment procedure, as applicable. Further guidance about the assessment and the designated assessors is given in Appendix III to AMC to IS 66.
   - he documentation and records to be provided to the student to justify the satisfactory completion of the training course and related examination/assessment. This should include not only a certificate of completion but enough documentation and records to justify that the content and duration approved has been met and that the examination/assessment has been successfully passed.

2. The above criteria apply to a full course as well as to a partial course such as the practical element of a type training course and its assessment.

3. The procedure should also indicate how the DGCA Sri Lanka is going to audit the proper performance of the approved course.

4. The direct approval of aircraft type training should be done on a case by case basis and should not be granted for long term periods, since it is not a privilege of the organisation providing the training.

SUBPART C

EXAMINATIONS

This Subpart provides the procedures to be followed for the examinations conducted by DGCA Sri Lanka/CAASL.

66.B.200 Examination by DGCA Sri Lanka/CAASL

(a) All examination questions shall be kept in a secure manner prior to an examination, to ensure that candidates will not know which particular questions will form the basis of the examination.

(b) DGCA Sri Lanka shall nominate:

1. Persons who control the questions to be used for each examination.
2. Examiners who shall be present during all examinations to ensure the integrity of the examination.

(c) Basic examinations shall follow the standard specified in Appendix I and II to IS 66.

(d) Type training examinations and type examinations shall follow the standard specified in Appendix III to IS 66.

(e) New essay questions shall be raised at least every six months and questions already used withdrawn or rested from use. A record of the questions used shall be retained in the records for reference.

(f) All examination papers shall be handed out at the start of the examination to the candidate and handed back to the examiner at the end of the allotted examination time period. No examination paper may be removed from the examination room during the allotted examination time period.

(g) Apart from specific documentation needed for type examinations, only the examination paper may be available to the candidate during the examination.

(h) Examination candidates shall be separated from each other so that they cannot read each other's examination papers. They may not speak to any person other than the examiner.

(i) Candidates who are proven to be cheating shall be banned from taking any further examination within 12 months of the date of the examination in which they were found cheating or in accordance with the applicable CAASL Regulation.

GM 66.B.200 Examination by the DGCA Sri Lanka

1. Questions may be prepared in the national language but the use of aviation English is recommended wherever possible.

2. The primary purpose of essay questions is to determine that the candidate can express themselves in a clear and concise manner and can prepare a concise technical report for the maintenance record, which is why only a few essay questions are required.

3. Oral type questions may not be used as the primary means of examination because of the difficulty in establishing consistency of standards between examiners or day-to-day. However, nothing prevents the DGCA Sri Lanka from meeting potential certifying staff for the purpose of ensuring they understand their obligations and responsibilities in the application of maintenance Parts.

4. For pass mark purposes, the essay questions should be considered as separate from the multiple choice questions.

5. Multiple choice question (MCQ) generation.

   The following principles should be observed when developing multiple choice question:

   (a) The examination should measure clearly formulated goals. Therefore the field and depth of knowledge to be measured by each question should be fully identified.

   (b) All the questions should be of the multiple choice type with three alternative answers.

   (c) Questions that require specialised knowledge of specific aircraft types should not be asked in a basic licence examination.

   (d) The use of abbreviations and acronyms should generally be avoided. However where needed, only internationally recognised abbreviations and acronyms should be used. In case of doubt use the full form, e.g. angle of attack = 12 degrees instead of a= 12°.

   (e) Questions and answers should be formulated as simply as possible: the examination is not a test of language. Complex sentences, unusual grammar and double negatives should be avoided.

   (f) A question should comprise one complete positive proposition. No more than 3 different statements should appear among the suggested

responses otherwise the candidate may be able to deduce the correct answer by eliminating the unlikely combinations of statements.

(g) Questions should have only one true answer.

(h) The correct answer should be absolutely correct and complete or, without doubt, the most preferable. Responses that are so essentially similar that the choice is a matter of opinion rather than a matter of fact should be avoided. The main interest in MCQs is that they can be quickly performed: this is not achieved if doubt exists about the correct answer.

(i) The incorrect alternatives should seem equally plausible to anyone ignorant of the subject. All alternatives should be clearly related to the question and of similar vocabulary, grammatical structure and length. In numerical questions, the incorrect answers should correspond to procedural errors such as corrections applied in the wrong sense or incorrect unit conversions: they should not be mere random numbers.

(j) Calculators are not allowed during examination. Therefore all calculations should be feasible without a calculator. Where a question involves calculations not feasible without a calculator, such as $\sqrt{10}$, then the question should specify the approximate value of $\sqrt{10}$.

(k) Questions should be referred to Part-66 Appendix I examination syllabus.

6. Essay question generation

(a) The purpose of the essay is to allow the DGCA Sri Lanka to determine if candidates can express themselves in a clear and concise manner in the form of a written response, in a technical report format using the technical language of the aviation industry. The essay examination also allows to assess, in part, the technical knowledge retained by the individual and with a practical application relevant to a maintenance scenario.

(b) Questions should be written so as to be broad enough to be answered by candidates for all licence category or sub-categories (Cat A, B1 & B2) and comply with the following general guidelines;

- The question topic selected should be generic, applicable to mechanical as well as avionic licence categories and have a common technical difficulty level as indicated in Part -66, Appendix I;

- Cover technology applicable to most areas of aircraft maintenance;

- Reflects common working practises;

- It is not type or manufacturer specific and avoids subjects which are rarely found in practice

- When drafting a question there is need to ensure that consideration is given to the limited practical experience that most candidates will have.

(c) To make the questions and the marking procedures are as consistent as possible, each question and model answer, with the required key areas required (see below), should be reviewed independently by at least 2 technical staff members.

(d) When raising questions the following should be considered:

- Each essay question will have a time allowance of 20 minutes.

- A complete A4 side is provided for each question and answer, if required the answer can be extended onto the reverse side of the page.

- The question should be such that the answer expected will be at the level shown for that subject in the module syllabus.

- The question should not be ambiguous but should seek a broad reply rather than be limited in scope for answer.

- The question should lend itself to be written in a technical report style, in a logical sequence (beginning, middle and end), containing the applicable and relevant technical words needed in the answer.

- Do not ask for drawings/sketches to support the essay.

- The question should be relevant to the category and level of difficulty listed in the syllabus, e.g. a description of a typical general aviation system may not be acceptable for a typical commercial aeroplane.

- Subject to obvious constraints in relation to the topic being addressed the question should have a strong bias towards the practical maintenance of a system/component and the answer should show an understanding of normal and deteriorated conditions of an aircraft and its systems.

  Variations on alternative possible answers which have not been thought of, may have to be taken into account to aid the examiner when marking. If considered relevant, the model answer should be amended to include these new points.

(e) Because of the difficulty in marking an essay answer using key points only, there is a need for the way in which the report was written to be assessed and taken into consideration.

(f) The total points for each question will add up to 100 and will need to reflect both the combination of the technical (key point) element and the report style element.

(g) Each key point will be graded upon its importance and have point weighting allocated to it. The total weight will represent 60% of the mark.

(h) Key points are the 'important elements' that may be knowledge or experience-based and will include other maintenance orientated factors such as relevant safety precautions or legislative practices if applicable. Excessive reference to the need for MM referral or safety checks may be considered wasteful.

(i) The question answer will be analysed for the clarity and manner in which the essay report is presented and have a weighting allocated to it, which will represent 40% of the mark.

(j) The answer should show the candidate's ability to express himself in technical language. This includes readability of the language, basic grammar and use of terminology.

(k) The report starts in the beginning and has logical process to reach a conclusion.

(l) Supporting diagrams should not be encouraged but if used should supplement the answer and not replace the need for a broad text answer.

(m) The report should not be indexed, itemised or listed

(n) Within reason the candidate should not be penalised for incorrect spelling.

(o) A zero mark should only be given in exceptional circumstances. Even if the student misunderstands the question and gives an answer to a different question, a sympathetic mark even if only for the report style should be given, this could up to the maximum percentage allowed.

(p) The two allocated marks should be added together and written into the answer paper.

(q) If a question answer resulting in a borderline failure is principally due to "written report errors," the paper should be discussed and the mark agreed if possible with another examiner.

SUBPART D

CONVERSION OF CERTIFYING STAFF QUALIFICATION

This Subpart provides the procedures for the conversion of certifying staff national qualifications referred to in point 66.A.70 of IS 66 to aircraft maintenance licences

66.B.300 General

(a) DGCA Sri Lanka may only perform the conversion specified in 66 .A.70 of IS 66 in accordance with a conversion report prepared pursuant to paragraph 66.B.305, as applicable.

(b) The conversion report shall be developed by DGCA Sri Lanka.

GM 66.B.300 General

As described in point 66.B.300, certifying staff qualifications eligible for conversion are those valid "prior to the entry into force of the applicable requirements of this IS 66.

66.B.305 Conversion report for national qualifications

(a) The conversion report for national certifying staff qualifications shall describe the scope of each type of qualification, including the national licence, if any, the associated privileges and include a copy of the relevant national regulations defining these.

(b) The conversion report shall show for each type of qualification referred to in point (a):

1. To which aircraft maintenance licence it will be converted, and
2. Which limitations shall be added in accordance with points 66.A.70(c) or (d) of IS 66, as applicable, and
3. The conditions to remove the limitations, specifying the module/subjects on which examination is needed to remove the limitations and obtain a full aircraft maintenance licence, or to include an additional (sub-) category. This shall include the modules defined in Appendix III to this IS 66 not covered by the national qualifications.

AMC 66.B.305(a) Conversion report for national qualifications

1. Conversion reports prepared on the basis of point 66.A.70(c) of IS 66 should include a comparison between the scope of the national qualification (i.e, the national qualification requirements) and the scope of the IS 66 licence qualification (i.e, the IS 66 qualification requirements), which should be performed on the basis of a detailed analysis of the national and IS 66 basic qualification standards. The report should identify where a difference between the two standards exists and where such a difference would lead to a limitation on the IS 66 licence.

2. Conversion reports prepared on the basis of point 66.A.70(d) of IS 66, which are limited to aircraft not involved in commercial air transport other than large aircraft, should include the privileges associated to the national qualification. The report should identify which limitations are needed on the IS 66 licence in order to maintain these privileges.

GM 66.B.305(b)3 Conversion report for national qualifications

As conversions performed on the basis of 66.A.70(d) of IS 66 are aimed to maintain the privileges of the pre-existing national qualification, the limitations introduced on the IS 66 licence are not linked to possible differences between the scope of the national qualification and the scope of the IS 66 licence qualification. This conversion does not include such comparison.

This means that, in order to remove such limitations, full compliance with the conditions of IS 66 needs to be demonstrated.

66.B.310 Reserved

SUBPART E

EXAMINATION CREDITS

This Subpart provides the procedures for granting examination credits referred to in point 66, A.25 (b) of IS 66.

66. B.400 General

(a) DGCA Sri Lanka may only grant examination credit on the basis of a credit report prepared in accordance with 66.B.405.

(b) The credit report shall be either:

(i) Developed by the DGCA Sri Lanka/CAASL, or

(ii) Approved by the DGCA Sri Lanka to ensure compliance with this IS 66.

(c) Credit reports together with any change of these shall be dated and kept on record by the DGCA Sri Lanka in accordance with point 66.B.20.

66. B.405 Credit report

(a) The credit report shall include a comparison between:

(i) The modules, sub-modules, subjects and knowledge levels contained in Appendix I to this IS 66, as applicable; and

(ii) The syllabus of the technical qualification concerned relevant to the particular category being sought.

This comparison shall state if compliance is demonstrated and contain the justifications for each statement.

(b) Credit for examinations, other than basic knowledge examinations carried out in maintenance training organisations approved in accordance with Part-147 can only be granted by the DGCA Sri Lanka.

(c) No credit can be granted unless there is a statement of compliance against each module and sub-module, stating where, in the technical qualification, the equivalent standard can be found.

(d) The DGCA Sri Lanka shall check, on a regular basis, whether:
(i) The national qualification standard, or
(ii) Appendix I to this Part-66 have changed and assess if changes to the credit report are consequently required.

Such changes shall be documented, dated and recorded.

66. B.410 Examination credit validity

(a) The DGCA Sri Lanka shall notify to the applicant in writing any credits granted together with the reference to the credit report used.

(b) Credits shall expire ten years after they are granted.

(c) Upon expiration of the credits the applicant may apply for new credits. The DGCA Sri Lanka shall continue the validity of the credits for an additional period of 10 years without further consideration if basic knowledge requirements defined in Appendix I to this Part have not been changed

GM 66.B.410 Examination credit validity

In the case of credits expired in accordance with 66.A.25(d) and 66.B.410(b), the new application for credits will lead to a reassessment in accordance with 66.B.405 and 66.B.410 only in those cases where the requirements contained in Appendix I to Part-66 have changed. This may lead to a requirement for further examinations on particular modules/sub- modules/subjects.

SUBPART F

CONTINUING OVERSIGHT

This Subpart describes the procedures for the continuing oversight of the aircraft maintenance licence and in particular for the revocation, suspension or limitation of the aircraft maintenance licence

66.B.500 Revocation, suspension or limitation of the aircraft maintenance license

DGCA Sri Lanka shall suspend, limit or revoke the aircraft maintenance license where it has identified a safety issue or if it has clear evidence that the person has carried out or been involved in one or more of the following activities:

1. Obtaining the aircraft maintenance licence and/or the certification privileges by falsification of documentary evidence.
2. Failing to carry out requested maintenance combined with failure to report such fact to the organisation or person who requested the maintenance.
3. Failing to carry out required maintenance resulting from own inspection combined with failure to report such fact to the organisation or person for whom the maintenance was intended to be carried out.
4. Negligent maintenance.
5. Falsification of the maintenance record.
6. Issuing a certificate of release to service knowing that the maintenance specified on the certificate of release to service has not been carried out or without verifying that such maintenance has been carried out.
7. Carrying out maintenance or issuing a certificate of release to service when adversely affected by alcohol or drugs.
8. Issuing certificate of release to service while not in compliance with this Part-M, IS 145 or

PART II

LICENSING PROCEDURES

PART II - LICENSING PROCEDURES

CHAPTER 1- GENERAL

Definitions

GM definitions:

1) OJT: On the Job Training within IS 145 or M.A. Subpart F organisation.
2) Practical Training: Practical Instruction delivered in IS 147 approved course.
3) Simulators: Devices that mimic real aircraft operations.
4) Certificate of Recognition: IS147 document used to demonstrate successful completion of approved Theory and Practical training only.
5) Type training: Combination of Theoretical and Practical training.
6) Practical experience: Logbook evidence of type interactions such as CAP741.
7) Type examination: Written examinations consisting of multi choice questions.
   Oral examination for types that are not supported by dedicated Part-147 Type training and carried out by the DGCA Sri Lanka.

1.1. Scope

This section (PART II of the Manual) describes the administrative procedures that the Personnel Licensing Staff and Airworthiness Staff of CAASL will follow while exercising their power of delegation to perform the tasks of issuance, continuation, change, suspension or revocation of IS 66 Aircraft Maintenance Licence under applicable rules and IS 66.

Personnel engaged in the activities of maintenance of aircraft and aircraft components will be issued with IS 66 Aircraft Maintenance Licence by the Civil Aviation Authority of Sri Lanka (CAASL). This licence allows the holder to issue Certificates of Release to service, applicable to the Category or Sub-Category applied for at Licence issue.

1.2. Resources

Applications for Issuance/continuation/change of IS 66 Aircraft Maintenance Licence are to be processed by the Personnel Licensing Section in consultation with Airworthiness Inspectors following the procedures detailed in this section. In order to ensure satisfactory performance of approval and associated activities, the CAASL has to ensure availability of adequate resources in terms of facilities, manpower, procedural system and authority. The number of staff must be appropriate to carry out the required functions as detailed in this procedure.

1.3. Record Keeping

Maintenance of records of an organization in a systematic manner is a key to achieve high level of efficiency, regularity, productivity and transparency of the work that it is performed. Record Management Manual (SLCAP 5100) of Sri Lanka has been developed with a view to achieving a uniform record management procedure within the Civil Aviation Authority.

As explained in 66.B.20 the Personnel Licensing Section shall establish a system of record-keeping that allows adequate traceability of the process to issue, revalidate, amend, suspend or revoke each aircraft maintenance licence in compliance with SLCAP 5150.

All the above records shall be kept in the applicant's personnel file maintained at CAA. The AML Register and database at Personnel licensing Section should be updated and recipient of license signed on the book whenever a license is issued, renewed, or converted.

The record keeping system shall ensure that all records are accessible whenever needed within a reasonable time. These records should be organized in a consistent way in numerical order as per licence number in an individual licence file. All records containing sensitive data regarding applicants or organisations should be stored in a secure manner with controlled access to ensure confidentiality of this kind of data.

1.4. Exemptions

All exemptions granted in accordance with CAASL Regulations on grant of exemptions from the specified requirements relating to Civil Aviation No. 01 of 2014 (Gazette No.1273/22 31 Jul 2014).

1.5. Complaints and appeal from an applicant whose application has been rejected

If an application has been rejected for whatever reason, it should be informed applicant in advance. An applicant could have the privilege of appealing for re-consider if resinous given in the letter of rejection is un-cleared. Appealing to be processed in accordance with CAA appealing procedure Chapter 15 of SLCAP 3010 Personnel Licensing Procedure Manual.
Update the applicant's file at CAA with all the relevant correspondences.

1.6. Confidentiality of Documents

All documents and information received and held by CAA related to the licensing, AME written examination and DGCA authorized assessor application which originates from the License Holder/Applicant or a third party are subject to non-disclosure to any other parties in accordance with regulation and internal working procedures without the approval of DGCA.

CHAPTER 2- ISSUE OF "IS - 66 AIRCRAFT MAINTENANCE LICENSE" (AML)

2.1 IS 66 Aircraft Maintenance License (AML)

IS 66 Aircraft Maintenance License (AML) is a licence issued by DGCA to a personnel involved in the maintenance of large aircraft or of aircraft used for commercial air transport, and components intended for fitment thereto conform to the requirements specified in the IS-66.
This guide provides guidance and standards for the Aircraft Maintenance Licence initial issue, Renewal, reactivation and issue of additional Type Ratings.
This guide is based upon the following references basically:

Civil Aviation Act No. 14 of 2010.
Implementing Standard 66 (IS 66)
Implementing Standard 147 (IS 147)

Aircraft maintenance licences includes:
- Category A
- Category B1
- Category B2
- Category B3
- Category C

2.2 How to get an IS 66 Licence?

In order to get an IS 66 AML (Aircraft Maintenance License), an applicant needs:

i. Basic knowledge (66.A.25);
ii. Basic experience (66.A.30).

In order to get TR endorsed in the AML, an applicant needs:

i. Type Training (Theoretical and Practical) (66.A.45)
ii. OJT for the first TR (66.A.45).

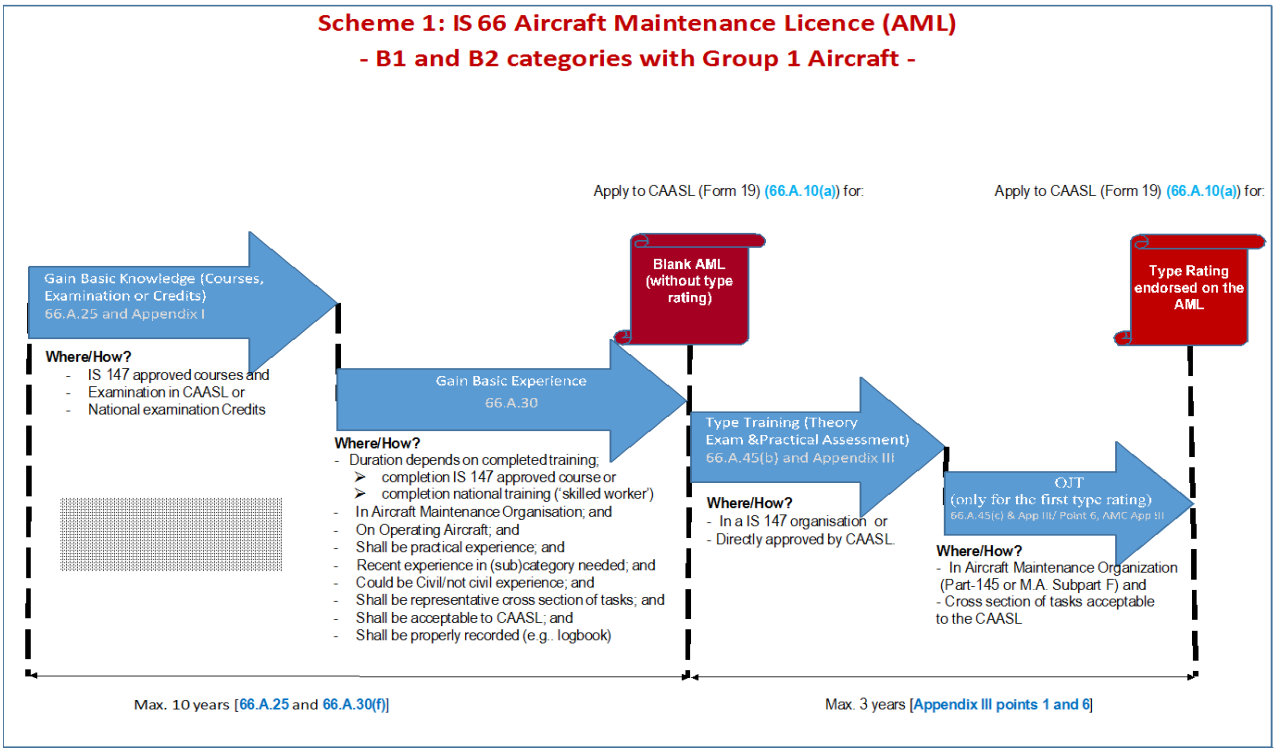
The following two schemes depict the most common paths and are for information only.

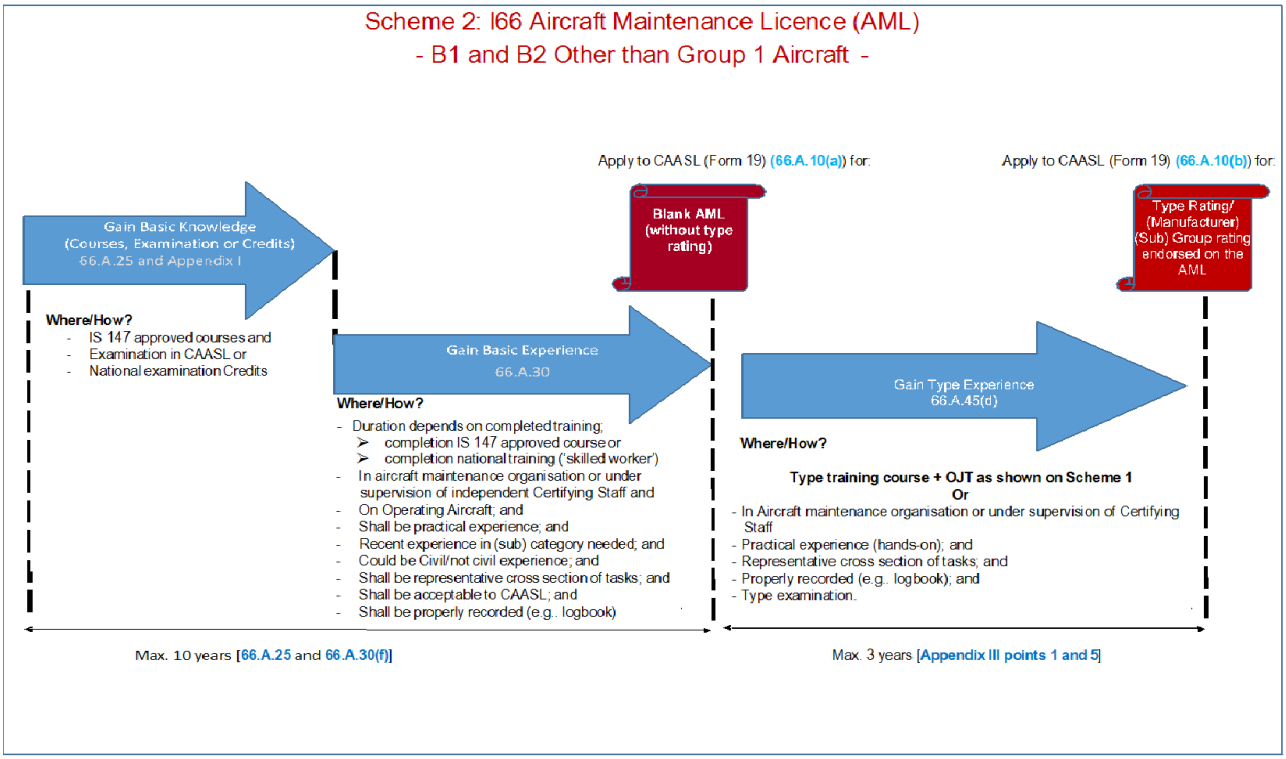
- The first scheme applies to Group 1 aircraft (B1 and B2 licence categories).
- The second scheme applies to other than Group 1 aircraft (B1 and B2 licence categories).

NOTE: Aircraft groups are described in 66.A.5.

These schemes do not override Part-66 requirements nor capture all the possibilities (various licences, educations and experiences). The start and end of each phase can vary depending on individual cases.

For further and detailed information, Refer to IS 66 and this Procedure Manual and consult the Personnel Licensing Section of the CAASL.





2.3 Basic knowledge Examinations

An applicant for an aircraft maintenance licence, or the addition of a category or subcategory to such a licence, shall demonstrate by examination a level of knowledge in the appropriate subject modules in accordance with Appendix I this IS 66. The examination shall be conducted by the DGCA Sri Lanka in accordance with Appendix II to IS 66

2.3.1 Application

Application for Examination is made on Form CAA/PL/E/09, which is available on the website at www.caa.lk.

2.3.2 Documents required with the Application for Basic knowledge examination

a) Dully completed Application Form CAA/PL/E/09.
b) Copy of the Birthday Certificate.
c) Copy of the NIC or Passport.
d) Payment slip

2.3.3 Acceptance and Review Application

Application for Basic knowledge examination is reviewed by the SCAI (PLES) / CAI (PLE) in accordance with the procedure in SLCAP 3080.
The applicant shall pay the fees specified in CAA levy and charges in cash.

The fees payment advice slip, shall be filled by the Civil Aviation Officer (CAO) in charge of Examination with the signature of Authorized Officer, which should be submitted to the Finance Section by the applicant and submit payment receipt to Examination Unit of the Personnel Licensing Section to ensure payment confirmation. If the application is incomplete return the application to the applicant before the payment of the fees.

2.3.4 Conduct of an Examination

The Basic knowledge examinations shall be conducted by the examination unit of the CAASL and confirmed exam dates and venues are published in CAA website. Records of all examinations are retained on examination database and Records of Individual applicants are retained in hard copy.

At Successfully completion of all exam modules pertinent to the category requested, candidates will be issued with a full result sheet signed by the Director (TOPEL).

DGCA has not approved maintenance training organisations to carryout examinations on behalf of DGCA in order to issue Basic Licenses.

2.4 Issuance of IS-66 Aircraft Maintenance Licence (AML)

2.4.1 Application

Applicants for IS-66 Aircraft Maintenance Licence (AML) shall submit the fully completed application form CAA/PL/I/08 (Form 19) which is available on the website at www.caa.lk

Note : Refer Chapter 5 & 6 of Personnel Licensing Office Procedure Manual (SLCAP 3030) to follow the procedure for submission of application to the Licensing System.

2.4.2 Documents Required with the Application for Issuance of AML

a) Certified true copies and originals of the appropriate Exam Certificates issued by the DGCA Srilanka completed for the category/sub-category applied for AML Knowledge examination result sheet.

b) Certified true copies and originals of the logbook/worksheets showing the evidence of the practical maintenance experience gained, certified by your Quality Manager. A Logbook format which is available on CAA website is the preferable format.

c) Certified true copy and originals of IS 147/EASA Part-147 Basic Training Course Certificate or Details of any training or other technical training completed with the transcript.

d) Copy of attested National ID or Passport. If copy is not attested verify by comparing with the original.

e) Certified true copy of the Birth Certificate. If copy is not attested, verify by comparing with the original.

Failure to provide any of the above documents will prevent further processing of application. The Licensing Section should inform the applicant about incomplete application and its justification via email (preferably) or a letter.

The Summary of supporting documents required with the application

Application	Dully completed Application Form CAA/PL/I/08	Passport for foreigners and National ID for Srilankans	Existing AML/AMEBL Licence(s)/Foreign license	Copy of Basic knowledge examinations Module Results	IS 147/ EASA approved Part 147 Basic Training Course Certificate (Certified Copies of certificate of recognitions)	Type Training Certificate issued by IS 147 MTO (Theoretical Element & Practical element) (Certified Copies of certificate of	On the Job Training report (only for endorsement of 1st Type Rating)	Change of Name/Nationality deed	Certified copies of worksheets or logbook	Evidence of work experience	Air Law (Module 10 Air LAW)	Police Report
Initial Issue	✓	✓		✓	✓				✓			
AME(BL) to AML Conversion	*	✓	✓	✓	✓							
Inclusion of another Category	✓	✓	✓	✓	✓				✓			
Type Rating Endorsement	✓		✓			✓	✓		✓	✓		
Removal of Limitation (Type)	✓	✓	✓		✓				✓			
Removal of Limitation (Basic)	✓	✓	✓	✓					✓			
Change of Name/Nationality /Address	✓	✓	✓					✓				
Duplicate Licence Request	✓	✓										✓
Renewal of Licence	✓	✓	✓									
Validation of Foreign Licence	**	✓	✓		✓					✓	✓	

* Application for Conversion of AME (BL) to AML

** Application for Issuance of FLVC for Aircraft Maintenance engineers

2.4.3 Acceptance and Review Application

Along with the fully completed application the applicant should pay the applicable fee specified in CAA levy and charges in cash and the respective supporting documents as explained 2.4.2

The Civil Aviation Officer (CAO) in charge of AML should complete the checklist CAA/PL/CL/42 pertaining category requested by the applicant to as shown in Appendix 2 of this manual. If the application is incomplete return the application to the applicant before the payment of the fees.

The fees payment advice slip, shall be filled by the Civil Aviation Officer (CAO) in charge of AML with the signature of Authorized Officer, which should be submitted to the Finance Section by the applicant and submit payment receipt to the Civil Aviation Officer (CAO) in charge of AML to ensure payment confirmation.
It is recommended to levy the "Evaluation Fee" When submitting applications and levy the "Issuance Fee" after application process and approved to issue licence.

2.4.4 Evaluation of an Application - Actions required

a) Upon receipt of the application form, fee and the respective supporting documents as detailed in the paragraph 2.4.1 and 2.4.2 of this procedure, the CAO in charge of the Aircraft Maintenance Licensing should evaluate the application form for completeness.

b) If the application was found to be incomplete, return the application or if it is a minor incompleteness inform the applicant to make the application complete before a given date if not return the full application with the concurrence of Director (Training Organization & Personnel Licensing).

c) According to 66.B.100, If all requirements are fulfilled, the CAO in charge of the Aircraft Maintenance Licensing should open a file and complete the checklist pertinent to requested category (CAA/PL/CL/42) which is found in Appendix 2 of this manual and should forward to CAI (PL-NFC) to evaluate the requirements against the checklist.

i. Knowledge requirement: The CAI (NFC) shall verify an applicant's examination status and/or confirm the validity of any credits to ensure that all required modules of IS 66 Section 1-Requirements, Appendix 1, have been met. A candidate must complete all required written and/or oral examinations within 10 years of their first pass. Passes falling outside that time limit will lapse. Failure to complete the examination within the given period of 10 year should re-appear for modules that have expired. The papers can be attempted in any order.

ii. Experience requirement: The file should be forwarded to Director (Aircraft Registration and Airworthiness) of Airworthiness Sections together with Logbook Copies/Worksheets to review the worksheet and write his comments and recommendations on the form “Aircraft Maintenance Personnel Log Book/Worksheet Evaluation Record Sheet” CAA/PL/M/22 which is found in Appendix I of this manual and to complete the relevant parts of the check list.
The designated Airworthiness Inspector should check that the experience are in compliance with the Procedure for evaluation of work experience to issue Aircraft Maintenance Licence and completing instructions given in the Appendix 3 to this Manual.

iii. Recent Experience: For a basic licence applicants, at least one year of the required experience must be recent maintenance experience on aircraft of the category/subcategory for which the initial aircraft maintenance licence is sought. For subsequent category/subcategory additions to an existing aircraft maintenance licence, the additional recent maintenance experience required may be less than one year, but must be at least three months. The required experience must be dependent upon the difference between the licence category/subcategory held and applied

for. Such additional experience must be typical of the new licence category/subcategory sought.

d) Applicants claiming credit against the paragraph 66.A.30 (a), experience requirement by virtue of paragraph 66.A.30 (e) aircraft maintenance experience gained outside civil aircraft maintenance (military) addressed in IS 66, may only be granted such credit where the DGCA has recognized. However, six months civil aircraft maintenance experience is required to issue the Aircraft Maintenance license. The applicant should produce worksheet/logbook evidence including a detailed statement of such maintenance experience signed by the Quality Manager or Head of Engineering of civil maintenance organization. Evidence of such civil work experience shall be properly recorded (e.g.. logbook) and shall be produced together with the application.

e) Experience shall have been acquired within the ten years preceding the application for an aircraft maintenance licence or the addition of a category or subcategory to such a licence.

2.4.5 Issue of Licence

a) Once the application is reviewed and evaluated by the Licensing Inspector in consultation with Director (Aircraft Registration and Airworthiness)/ Airworthiness Inspector in accordance 2.4.4 and found satisfactory, should be forwarded with his/her recommendation to Director (TOPEL) for approval of the licence.

b) On meeting all requirement according to the checklist and once it approved, print the licence. The License format is available in Licence System and the Licence template folder.
Refer SLCAP 3030 Appendix F to find the licence template.

c) Successful applicant will be issued with IS - 66 Aircraft Maintenance Licence for a further period according to the evaluation check list. The validity period should be started from the date of issue.

d) Before issuing Aircraft Maintenance Licence, the documents explained under the paragraph 2.4.2 should be attached to the applicant's file. Update the license Register Book and the Data Base.

e) The Aircraft Maintenance Licence number, for initial issuance is depending on the register order and the database order (i.e. as given in AML register book).

f) Prior to issuing Aircraft Maintenance Licence, the CAI (PLNFC) should make sure that the applicant signs licence. The license holder should sign the license in ink. A copy of this signed licence shall be filed in the applicant's folder.

g) Prior to issuing Aircraft Maintenance Licence, the Civil Aviation Officer and CAI (NFCL) should make sure that the applicant or the respective person who collects the licence has signed the register.

h) Any documents received pertaining to the applicant's Aircraft Maintenance Licence should be filed in the applicant's personal file.

Note : Refer Chapter 6 of SLCAP 3030 to follow the procedure for evaluation and approval of application submitted through online licensing system which is called as LIMS

2.5 Change of an aircraft maintenance license to include an additional basic category or subcategory

2.5.1 Initiation Process

a) Application -
Applicants for Change of an aircraft maintenance license to include an additional basic category or subcategory shall submit the fully completed application form CAA/PL/I/08 (Form 19) which is available on the website at www.caa.lk

b) Payment shall be levied in accordance with the procedure in 2.4.3

c) Examination Requirement -
The examination requirement is explained in IS -66 Appendix I. Repeat steps in above para 2.3 for examination procedure.

d) Experience Requirement -
To extend the licence with another category or sub-category, Applicant will be required to provide the minimum civil aircraft maintenance experience requirement appropriate to the additional Category/Sub-Category of licence applied for as explained in Appendix IV of IS 66. This experience can be documented in the form of a logbook and/or worksheets ensuring the tasks have been signed off by the appropriate signatory. Repeat steps in para 2.4.3, 2.4.4.

2.5.2 Evaluation process

As explained in 66.B.110, IS-66 Aircraft Maintenance Licenses often requires different knowledge levels for different category and sub-category licenses to eligible for the issue of aircraft maintenance release on different aircraft types. In order to extend a license to include another category or sub-category, additional training and/or examinations applicable to the Category/Sub-Category applying for may be required.

In addition to the documents required under 2.4.2 of this section, as appropriate, the applicant for additional basic categories or subcategories to an IS 66 Aircraft Maintenance Licence will submit his/her current original aircraft maintenance licence to CAASL.

Repeat of steps in paragraph 2.4.5 of this procedure and at the completion of the procedure DGCA Sri Lanka will endorse the additional basic category or subcategory on the IS 66 Aircraft Maintenance Licence by reissuing the licence. CAASL file will be amended accordingly.

2.6 Change of an aircraft maintenance license to include an aircraft rating or to remove limitations.

On receipt of a fully completed application form CAA/PL/I/08 (Form 19) and all relevant supporting documentation demonstrating compliance with the requirements of the applicable rating together with the accompanying aircraft maintenance licence, the DGCA Sri Lanka shall verify application form and any supporting documentation demonstrating compliance with the requirements of the applicable rating as per procedure laid down in Chapter 3. Upon satisfactory verification, the DGCA Sri Lanka shall:

a) Endorse the applicant's aircraft maintenance licence with the applicable aircraft rating according to the procedure in Part I ,66.B.115 and below Chapter 3 of this manual; or

b) Reissue the said licence to include the applicable aircraft rating; or

c) Remove the applicable limitations in accordance with point 66.A.50 of IS 66.

The CAASL record system shall be changed accordingly.

CHAPTER 3 - ENDORSEMENT WITH AIRCRAFT TYPE RATINGS

3.1. Introduction

In order to be entitled to exercise certification privileges on a specific aircraft type, the holder of an aircraft maintenance licence needs to have his/her licence endorsed with the relevant aircraft ratings as explained in 66.B. 115.

Holders of IS 66 Aircraft Maintenance Licences in Category B1, B2 and C may apply for inclusion of an Aircraft Type Rating subject to meeting the relevant requirements in 66.A.45. A Category A licence does not contain type ratings

In order that a IS 145 or IS Part -M maintenance organisation can issue a certification authorisation to a IS 66 licence holder in categories B1 and B2 the relevant type rating must be held. Without the relevant type rating and authorisation, the licence holder cannot sign the Certificate of Release to Service for work carried out on the aircraft..

3.2. Aircraft Type Ratings & Group Ratings

The endorsement of aircraft type ratings requires the satisfactory Completion of the relevant category B1, B2 or C aircraft type training. Aircraft type training shall be conducted by a maintenance training organisation appropriately approved in accordance with IS-147 or, when conducted by other organisations, as directly approved by the DGCA Sri Lanka.
DGCA Sri Lanka issue type ratings and group ratings in accordance with 66.A.45 (a) of IS 66.

a) Type Ratings-
Type Ratings are issued in accordance with IS 66, Appendix III. Aircraft Type Ratings are listed in Aircraft Type List in Appendix 1 of IS 66- AMC.
Individual type ratings will be granted following completion of appropriate type training, examination and experience requirements.

b) Manufacturer Group Ratings-
Manufacturer group ratings may be granted after complying with the type rating requirements of two aircraft types' representative of the group from the same manufacturer.

c) Full Group Ratings-
Full group ratings may be granted after complying with the type rating requirements of three aircraft types representative of the group from different manufacturers.

3.3. IS 147 Approved Type Training

a) Category B1 and B2

IS 147 training should include theoretical and practical elements in relation to the licence privileges. Theoretical and practical training must comply with IS 66, Appendix III. This training coupled with relevant type experience is a prerequisite for licence type endorsement and forms the basis for an IS 145 Authorisation to be issued.

b) Category C

Type training for Category C must comply with IS 66, Appendix III. Category C applicants who have qualified by holding an academic degree must take the first aircraft type theoretical training at Category B1 or B2 level. Practical training is not required.

Table below summarises the type training requirement for each category Category A, B1 & B2 Category C IS-147 approved training which includes both practical and theoretical training. Only IS-147 approved theoretical training

Category A, B1 & B2	Category C
IS-147 approved training which includes both practical and theoretical training.	Only IS-147 approved theoretical training.

Where the maintenance organisation approved under IS-145 conducts the practical training, it must confirm to the DGCA Sri Lanka that the trainee has been assessed and has successfully completed the practical elements of type training course to satisfy the requirements of IS 66.45(c).

3.4. Procedure of endorsement of type rating

3.4.1 Pre-requisites

Applicant must hold an existing IS 66 Aircraft Maintenance Licence and have met the full requirements as per IS 66, 66.A.45.

Ensure that the relevant theoretical type rating training has been conducted within an approved IS 147 training organisation and ensure that the relevant practical type rating training has been conducted within either an approved IS 147 training organisation or an approved IS 145 organisation.

If however an applicant applying for his/her first type rating to be endorsed onto his/her IS 66 Aircraft Maintenance Licence, then applicant must ensure that the structured approved OJT has been completed within an approved IS 145 organisation in support of your theoretical and practical Certificates of Recognition(s).

3.4.2 Application

Applicants for endorsement of type rating/s on IS 66 Aircraft Maintenance Licence (AML) shall submit the fully completed application form CAA/PL/I/08 (Form 19) which is available on the website at www.caa.lk.

Note: Refer Chapter 5 & 6 of Personnel Licensing Office Procedure Manual (SLCAP 3030) to follow the procedure for submission of application to the Online Licensing System.

3.4.3 Acceptance and Review Application

Along with the fully completed application the applicant should pay the applicable fee specified in CAA levy and charges in cash and should attach the respective supporting documents as explained in 2.4.2.

3.4.4 Evaluation of an Application - Actions required

a) Upon receipt of the application form, fee and the respective supporting documents the Civil Aviation Officer (CAO) in charge of Aircraft Maintenance Licensing should evaluate the application form for completeness.

b) If the application was found to be incomplete, return the application or if it is a minor incompleteness ask the applicant to make the application complete before a given date if not return the full application with the concurrence of Director (TOPEL).

c) If all requirements are fulfilled, the CAO in charge of the Aircraft Maintenance Licensing should file and complete the checklist CAA/PL/CL/78 which is found in Appendix 2 of this manual and should forward to CAI (PL-NFC) to evaluate the requirements against the checklist.

d) In the case where the On-the-Job Training is not required, the aircraft type rating shall be endorsed based on a Certificate of Recognition issued by a maintenance training organisation approved in accordance with IS 147. Ensure that the relevant theoretical type rating training has been conducted within an approved IS 147 training organisation and Ensure that the relevant practical type rating training has been conducted within either an approved IS 147 training organisation or an approved IS 145 organisation. (Refer MTOE of the relevant IS 147 training organisation). If any uncertainty, the clarification and recommendation to be obtained from Director (Aircraft Registration and Airworthiness) of CAASL.

e) The endorsement of the first aircraft type rating within a given category/sub-category requires satisfactory completion of the corresponding On-the-Job Training, as described in Appendix III to IS 66 must ensure that the structured approved OJT has been completed within an approved IS 145 organisation in support of applicant's theoretical and practical Certificates of Recognition(s). The final assessment of the completed OJT is mandatory and should be performed by a designated assessor appropriately qualified. The OJT and the OJT report should

be in accordance with the procedure PEL/OP/AML/002 in Appendix 3 of this manual.

f) The file should be forwarded to Senior Civil Aviation Inspector (NFCL) to ensure that the OJT are in compliance with the IS 66 and the above procedure

3.4.5 Issue of Type Rating/s

a) Once the application is reviewed by the Senior Civil Aviation Inspector (NFCL) in consultation with Airworthiness Inspector and/or Director (Aircraft Registration and Airworthiness) (if necessary only) should be forwarded with recommendation to Director (TOPEL) for approval of the licence.

b) On meeting all requirement, the applicant will be issued with a Type Rating/s on his AML.

c) Before issuing Type Rating/s, the documents explained under the paragraph 2.4.2 should be filed in the applicant's file. Update the license Register Book and the Data Base.

d) Any documents received pertaining to the applicant's Aircraft Maintenance Licence should be filed in the applicant's personal file.

e) The CAASL present policy does not intend to authorise any IS-145 approved maintenance organisation to issue AML on behalf of DGCA Sri Lanka.

Note: Refer Chapter 6 of SLCAP 3030 to follow the procedure for evaluation and approval of application submitted through online licensing system which is called as LIMS.

3.5. Direct Course Approval

Direct Course approval is as approval of aircraft type training courses conducted by Non-IS 147 approved maintenance training organisation

The DGCA Sri Lanka may approve aircraft type training not conducted by a maintenance training organisation approved in accordance with IS 147, pursuant to point 1 of Appendix III to IS 66. In such case the DGCA Sri Lanka shall ensure the aircraft type training complies with Appendix III of IS 66. Hence Training Organizations other than IS 147 organisation (including IS145 maintenance organisations and manufacturers) can be approved by DGCA Sri Lanka to provide theoretical element (theoretical training and examination) and/or practical element (practical training and assessment) of aircraft type training. This so called "direct" approval may be given by the DGCA Sri Lanka in accordance with 66.B.130 provided.

This is a one-time approval on a case-by-case basis for a single course or a predefined group of courses i.e. IS-145 approved maintenance organization cannot receive a permanent approval for aircraft type training.

All aircraft type training courses, other than those carried out by a IS 147 training organisation approved to conduct type training, must be pre-approved by DGCA Sri Lanka and the application will be processed in accordance with this procedure.

3.5.1 Approval Procedure

a) The DGCA Sri Lanka may approve aircraft type training not conducted by a maintenance training organisation approved in accordance with IS 147, pursuant to point 1 of Appendix III to IS 66 and 66.B.130 of this manual.

b) In such cases, the CAASL shall be satisfied that type-training requirements are complied with IS 147 requirements before the type rating is issued.
The approved type-training course shall include theoretical course elements/examinations acceptable to the DGCA Sri Lanka. However the type rating endorsement on the IS 66 licence also requires the performance of practical training/assessment elements acceptable to the DGCA Sri Lanka. The practical training/assessment element may either be part of the approved type training course or be performed directly by the approved maintenance organisation. Type training courses will be approved in accordance with IS 66 Appendix III.

c) Conditions for Direct Course approval are as follows

1. The Training Organization who conducts the type training to be approved must hold a valid certificate of approval as a maintenance training organisation issued by that Foreign Authority. The DGCA Sri Lanka may require authentication/ verification of the certificate of such approval from the Foreign Authority to confirm the validity of the approval certificate.
2. The Training Organization should have an effective independent quality monitoring (audit) system to ensure that it remains in compliance with the standard to which its EASA Part 147 approval was issued and acceptable to DGCA Sri Lanka..
3. The Training Organization accepts that DGCA Sri Lanka may access the Maintenance Training Organisation's facilities during its normal working hours to verify compliance.
4. The DGCA Sri Lanka may require authentication/ verification of the certificate of recognition from the Training Organization to confirm the authenticity of the certificate.
5. Approval is a one-time approval on a case-by-case basis for a single course or a predefined group of courses and should not be granted for long term periods.
6. The course and the assessment complies with the same standard valid for approved Part-147 organisations; this standard is described in paragraph 1 to 4 of Appendix III to Part-66.

7. No Part-147 Certificate of Recognition can be issued. However, an appropriate training certificates can be issued after successful completion of both elements.
8. The direct approval of the course will be granted only to Manufacturer Type course, Factory Type course or foreign approved 147 training organizations.
9. In consultation with Director (TOPL) and Director (Aircraft Registration and Airworthiness), DGCA shall nominate a qualified Inspector to conduct an audit to ensure that the training/examination is to the required standard. The audit may be a physical audit or desktop audit as determined by the DGCA.

3.5.2 Application

Application for Direct Course approval, should be made on Application Form CAASL/PL/I/29 which is found in Appendix 1 of this manual, to the Personnel Licensing Section. Please visit www.caa.lk to find the application.

The processing of an application, including auditing of the course takes some time to complete and consequently organisations requiring approval of type training courses should make the application well in advance of the anticipated start-up date.

Note: Applicant may be an aircraft owner / operator or IS 145 approved organisation or IS 66 AML holders who is seeking type rating endorsement.

3.5.3 Acceptance and Review Application

Along with the fully completed application the applicant should pay the applicable fee specified in CAA levy and charges in cash and the respective supporting documents as explained below.

a) Details of the Training Organization and approvals hold
b) Location of the Training Organization
c) Details of Training Course including
    1. Personnel
    2. Facilities
    3. Course syllabus
    4. Knowledge examinations
    5. Practical training
    6. Practical Assessment
    7. Conduct of course
    8. Quality control
    9. Course records
    10. Course certificates

3.5.4 Evaluation of an Application

The procedure for the direct approval should require that the following aspects are described by the organisation providing the training:

a) The content and the duration of the theoretical and/or practical elements, as applicable, in accordance with Appendix III to IS-66, including the Training Need Analysis (TNA);
b) The teaching methods and instructional equipment;
c) The material and documentation provided to the student;
d) The qualification of instructors, examiners and/or assessors, as applicable;
e) The examination and/or assessment procedure, as applicable. Further guidance about the assessment and the designated assessors is given in Appendix III to AMC to IS-66.
f) The documentation and records to be provided to the student to justify the satisfactory completion of the training course and related examination/ assessment. This should include not only a certificate of completion but enough documentation and records to justify that the content and duration approved has been met and that the examination/assessment has been successfully passed.

The above criteria apply to a full course as well as to a partial course such as the practical element of a type training course and its assessment.

Applicants applying under a direct course approval must ensure that the DGCA Sri Lanka has granted approval to the relevant Operator, Training or Maintenance Organisation, prior to embarking on the course, as courses will not be retrospectively approved.

DGCA Sri Lanka conducts a audit to assess the proper performance of the training course and to ensure that the course criteria must be to the same standards as IS 147.

3.5.5 Conduct of an Audit

a) In consultation with Director (TOPL) and Director (Aircraft Registration and Airworthiness), DGCA shall nominate a qualified Inspector to conduct an audit to ensure that the training/examination is to the required standard. Inspector may be from AW section or Licensing Section or combination. The audit may be a physical audit or desktop audit as determined by the CAASL after reviewing the application. Audit shall be conducted in all aspects and items to be assessed are:

1. Personnel-Instructor, Examiners, Assessors qualifications
2. Facilities
3. Course Syllabus- Course length and Training material contents and quality

4. Knowledge Examinations-Length, number and conduct of examinations, Sample of examination questions
5. Practical Training
6. Practical Assessment
7. Conduct of course- Quality control, course records.
8. Course certificates - Certificate to be issued.

All above must meet the requirements of IS 66 / IS 147.

b) If the audit is physical audit, the cost of the audit/ surveillance shall be borne by the applicant who request to approve type training. Completion of such audit/ surveillance may result in approval, continuation, suspension or renewal of the certificate of acceptance, depending upon the recommendation of the CAASL Auditor(s).
Any findings that affect the standards of the training course must be rectified before any certificates/approval are issued.

c) CAA Inspector should submit a comprehensive report to DGCA indicating his recommendation of acceptance of the training course and complete the check list CAA/PL/CL/81 which is found in Appendix 2 of this manual.

d) The DGCA Sri Lanka may approve the course by letter that will contain any specific conditions necessary if the training course found satisfactory to the standards in IS 66.

3.5.6 Audit aspects

a) Personnel

The experience and qualifications of the person in charge of the training course shall be such as to ensure that the training will be conducted in a satisfactory manner. The number, qualifications and experience of the course instructors, examiners and practical assessors, shall be appropriate to the intended course.

b) Facilities

Facilities should be provided that are adequate to ensure protection from the prevailing weather and of overall size to cope with all planned training and examinations on any particular day. They should be fully enclosed and separate from other facilities for theory and examinations.

They should be maintained at a light, noise and temperature/humidity level such that students are able to concentrate on their studies or examinations without undue distraction or discomfort.

Access should be provided to appropriate facilities containing examples of the aircraft and/or engine type.

Adequate office accommodation should be provided for the instructor(s), examiner(s) and practical assessor(s).

Adequate storage facilities should be available for examination papers and training records.

The students should have access to a library containing all current technical material appropriate to the training course.

c) Course syllabus

The type training will include training corresponding satisfactory to the standards in IS 66 Appendix III. The training should give adequate detailed theoretical knowledge of the aircraft, its main parts, systems (all existing systems in accordance IS 66 Appendix III paragraph 3.1 where applicable) equipment, interior and applicable components. Relevant in-service problems, service bulletins and instructions should also be covered, including training in the systems in use for technical manuals and maintenance procedures. Knowledge is also required of relevant inspections and limitations as applicable to the effects of environmental factors such as cold and hot climates, wind moisture etc.

A Training Needs Analysis (TNA) will be submitted to justify the hour duration of the training course IS 66 Appendix III para 3.1 (d)
If some items of the syllabus are not included in such a course, then an additional training course must be arranged and approved under the Direct Course Approval process to fill the gaps in order that the full requirements for licence issue of IS 66 are met.

d) Knowledge examinations

Knowledge examinations must be conducted at the end of each distinct phase of training or at the end of the course. The examinations must be conducted satisfactory to the standards in outlined in IS 66 Appendix III paragraph 4.1.

c) Practical training

Practical training should be performed satisfactory to the standards in IS 66 Appendix III paragraph 3.2 and to include hands on training in maintenance of the aircraft, rigging, adjustments, replacement of line replaceable units, trouble-shooting, rectification of minor defects and functional tests of systems.

Practical training may be carried out at an approved maintenance organisation or at the manufacturers or a combination of both but such training will form part of the particular aircraft type training either approved directly by CAASL or approved via the IS147 requirement.

The training shall include practical hands-on training and theoretical training as appropriate for each task nominated. Satisfactory completion may be demonstrated by a workplace assessment.

An authorised instructor must conduct the training and an authorised practical assessor must conduct the practical assessment. Qualifications and experience standards for the instructors and practical assessors must be established.

d) Practical Assessment

Practical assessments should be conducted satisfactory to the standards in IS 66 Appendix III para 4.2. An assessed pass for each student should be granted when the practical assessor is satisfied that the student has demonstrated the practical assessment satisfactory.

e) Conduct of course

Lecture notes, diagrams and other instructional material shall be substantially accurate at the time they are handed out. Where an amendment service is not provided a written warning must be given to this effect.

f) Quality control

An audit will be carried out by the Qualified Inspector Designated by DGCA to ensure that the training/examination is to the required standard. Any findings that affect the standards of the training course must be rectified before any certificates/approvals are issued.

g) Course records

Records of course attendance, examinations and student ID, shall be submitted to the DGCA Sri Lanka.

h) Course certificates

Certificates should be awarded to the successful students on completion of the course. The certificate details must be agreed by the DGCA Sri Lanka and should include the following;

1. a unique certificate number;
2. name plus the location and date of birth of the student;
3. name of the course provider;
4. the airframe/engine combination, whether the engine is included in the course or not (this is important for Part-66 type rating purposes as the type rating refers to an airframe/engine combination);
5. IS 66 Category, i.e. A, B1 or B2, if applicable;
6. subjects i.e. airframe/engine/electrical /avionic;
7. a clear indication of the standard of the course i.e. in accordance with IS 66.Appendix III;

8. the duration of the course including the start and end dates;
9. specific elements of the course to which the certificate relates i.e. knowledge only, practical training only or knowledge and practical training,
10. Any other relevant details particular to the course such as APU type(s).

A sample template can be provided by the CAASL

3.5.7 Issue of Approval

Upon receipt of the application form, fee and the respective supporting documents as detailed in the paragraph 3.5.4 of this procedure, the Civil Aviation Officer (CAO) in Charge of the AML should submit to CAI (NFCL)/SCAI (NFCL) to start the evaluation and approval Process.

3.5.8 Direct Course approval with Desktop Audit

This procedure is applicable to a Foreign Approved Training Organizations holding EASA Part 147 approval seeking acceptance to conduct aircraft type training to maintenance personal for the purpose of type rating endorsement on IS 66 AML. Holders of AML issued by DGCA Sri Lanka who works in Foreign AMO also can apply under this criteria to endorse type rating/s.

a) Conditions for acceptance of Foreign Approved Organization

1. The Foreign Approved Training Organizations must hold a valid certificate of approval as an EASA Part 147 maintenance training organisation and should be based in an EASA member state.

2. The DGCA Sri Lanka may require authentication/ verification of the certificate of recognition from the EASA to confirm the authenticity of the certificate.

3. All aircraft type training courses, other than those carried out by a IS 147 training organisation approved to conduct type training, must be pre-approved by DGCA Sri Lanka and type training shall not be conducted before granting the approval.

b) Procedure for Acceptance

The procedure for such approval of type training courses by the DGCA Sri Lanka should require that the following aspects are described by the organisation providing the training:

1. The content and the duration of the theoretical and/or practical elements, as applicable, in accordance with Appendix III to IS-66, including the Training Need Analysis (TNA);
2. The teaching methods and instructional equipment;
3. The material and documentation provided to the student.

4. The qualification of instructors, examiners and/or assessors, as applicable;
5. The examination and/or assessment procedure, as applicable.
   Further guidance about the assessment and the designated assessors is given in Appendix III to AMC to IS-66.
6. The documentation and records to be provided to the student to justify the satisfactory completion of the training course and related examination/ assessment. This should include not only a certificate of completion but enough documentation and records to justify that the content and duration approved has been met and that the examination/assessment has been successfully passed.

The approval of aircraft type training should be done on a case by case basis and should not be granted for long term periods, since it is not a privilege of the organisation providing the training.

Type training courses will be approved in accordance with the requirement in Part 66 Appendix III and to satisfactory to the standards in IS 66.

The approval of the course will be granted only to Manufacturer Type course, Factory Type course or foreign approved EASA Part 147 training organizations

CAA Inspector should conduct a desktop audit to audit the proper performance of the approved course and shall require authentication/ verification of the following details.

1. authentication/ verification of the certificate of recognition from the EASA to confirm the authenticity of the certificate
2. authentication/ verification of the Approval from EASA for the TO
3. Authentication/ verification of the training course details as detailed in above 1-5

c) Application

Application for Direct Course approval, should be made on Application Form CAASL/PL/I/29 which is found in Appendix 1 of this manual, to the Personnel Licensing Section.
The processing of an application, including auditing of the course takes some time to complete and consequently organisations requiring approval of type training courses should make the application well in advance of the anticipated start-up date. All aircraft type training courses approved to conduct type training, must be pre-approved by DGCA Sri Lanka and the application will be processed in accordance with this procedure.

Note: Applicant may be an aircraft owner/ operator or IS 145 approved organisation or Holders of AML issued by DGCA Sri Lanka who works in Foreign AMO.

d) Acceptance and Review Application

Along with the fully completed application the applicant should pay the applicable fee specified in CAA levy and charges in cash and the respective supporting documents as explained below.

The applicant shall submit following documents together with the application.

1. Requisite fees
2. Letter of Intent.
3. Copy of EASA Part 147 Maintenance Training Organisation Approval Certificate
4. Curse details (Theoretical and practical training)
5. Details of Examination and/or Assessment procedure
6. Course completion certificate " Certificate of recognition"
7. Any other details request by DGCA Sri Lanka.

e) Issue of Approval

Upon receipt of the application form, fee and the respective supporting documents as detailed in the paragraph 3.4.5.3 of this procedure, the Civil Aviation Officer (CAO) in Charge of the AML should submit to CAI (NFCL)/SCAI (NFCL) for evaluation and further approval Process.

In consultation with Director (TOPL) and Director (Aircraft Registration and Airworthiness), DGCA shall nominate a qualified Inspector to conduct a Desktop Audit to ensure that the training/examination is to the required standard. Audit shall be conducted in all aspects as detailed below;

1. EASA 147 approval and its validity and authenticity
2. Training material contents and quality
3. Instructor, Examiners, Assessors qualifications
4. Facilities
5. Course length and Syllabus
6. Certificate to be issued.
7. examination system
8. Length, number and conduct of examinations

Auditor shall verify from the authenticity of the all certificates/documents via email/fax/letter through a proper system established by DGCA.

Completion of such desktop audit may result in approval, continuation, suspension or renewal of the certificate of acceptance, depending upon the recommendation of the CAASL auditor(s).
Any findings that affect the standards of the training course must be rectified before any certificates are issued.
CAA Inspector should submit a comprehensive report to DGCA indicating his recommendation of acceptance of the training course and complete the # 11,12 of the check list CAA/PL/CL/81 which is found in Appendix 2 of this manual.

The DGCA Sri Lanka may approve the course by letter that will contain any specific conditions necessary if the Training course found satisfactory to the standards in IS 66**.**

In addition to the above requirement in a) to e) the endorsement of the first aircraft type rating within a given category/sub-category requires satisfactory completion of the corresponding On-the-Job Training, satisfactory to the standards in Appendix III to IS-66. OJT report shall be submitted according to the procedure in 3.6 of this manual.

3.6. On the Job Training (OJT) for first type ratings

3.6.1 Introduction

OJT is a supervised event rather than an instructed one and should include one to one supervision and involve actual work task performance on aircraft/components, covering line and/or base maintenance tasks. The completion of the pre-agreed tasks should be in a log book format, issued by the approved organisation to the student and carried out under the direct supervision of an engineer approved to complete the tasks. These tasks constitute further 'type contact' to consolidate the Theory and Practical training and to gain experience in performing safe maintenance on their first type in each subcategory.

The organisation providing the on-the-job training should provide trainees a schedule or plan indicating the list of tasks to be performed under supervision. A record of the tasks completed should be entered into a logbook which should be designed such that each task or group of tasks is countersigned by the corresponding supervisor. The logbook format and its use should be clearly defined.

3.6.2 Regulatory Requirement:

According to 66.A.45(b) of IS 66 ,The endorsement of aircraft type ratings requires the satisfactory completion of the relevant category B1, B2 or C aircraft type training. Aircraft type training shall consist of theoretical training and examination, and, except for the category C ratings, practical training and assessment and shall have been started and completed within the three years preceding the application for a type rating endorsement.

In addition to the requirement of point 66.A.45(b) (b), the endorsement of the first aircraft type rating within a given category/sub-category requires satisfactory completion of the corresponding On-the-Job Training, as described in Appendix III to IS 66.

OJT shall be performed on the aircraft type for which the applicant is seeking type endorsement. The objective of the OJT is to gain the required competence and experience in performing safe maintenance on that particular aircraft type.

This is mandatory for group1 aircraft. For groups 2 and 3 aircraft, OJT is not required if an oral examination is conducted in place of type training (Theory and Practical). If type training is conducted, OJT will again be required (GM 66.A.45). See Table 1 below for clarification.
OJT should not be confused with Practical Training which is conducted by Part-147 organisations.

The Engineer/applicant must supply evidence of completing the following for each first type in each licence sub-category:

Part-147 organisation
- Theory training and examination
- Practical training and assessment

Part-145 organisation
- On the Job training (OJT) and assessment *

* OJT is only required for the initial type in each licence category or sub-category:

For example; if a basic B1/B2 licence is endorsed with the Airbus A320 type in the B1 category and the engineer wishes to add the A320 in the B2 category, he/she will have to complete B2 related OJT representative of that aircraft and its systems.

If the same engineer adds the B1.3 category to the basic licence and wishes to add the first helicopter type, he/she must complete OJT representative of that first helicopter type. Endorsement of any subsequent types in each of the categories will not require OJT.

OJT should be as follows:
1. On-the-Job Training (OJT) shall be approved by the DGCA.
2. OJT shall have been started and completed within the three years preceding the application for a type rating endorsement.

3.6.3 Training privileges

OJT is usually delivered peer-to-peer and shall take place on the aircraft, or aeronautical product, or at the workplace involving actual work task performance. OJT may include both line and base maintenance tasks and must comply with the requirements of Appendix III of the IS 66.

OJT may only be carried out under the control of a maintenance organisation appropriately approved to maintain the particular type concerned – this means a IS145 or M.A. Subpart F approved maintenance organisation. It is not mandatory for a maintenance organisation to deliver OJT but in either case, the MOE must indicate applicability.
Up to 50% of the required OJT can be undertaken before the aircraft theoretical type training starts.

Type specific tasks may be substituted as applicable to the aircraft type concerned and licence category. OJT should demonstrate a variety and cross section of tasks both in terms of aircraft systems experience and in the complexity of the tasks performed. The design of the OJT program should consider which tasks for an aircraft will be mandatory irrespective of the experience reductions available by virtue of completing type training. There will be aircraft specific tasks that every applicant will need to carry out, irrespective of their experience.
Type experience should be demonstrated by the submission (to the AMO assessor) of OJT records or a logbook showing tasks performed by the applicant. The maintenance organisation should provide applicants a schedule or plan indicating a list of tasks for a type rating to be performed under supervision. A record of the tasks completed should be entered into a logbook, which should be designed such that each or a group of tasks may be countersigned by a workplace supervisor, peer or assessor.

3.6.4 Content

At least 50% of the tasks contained in Appendix II to AMC to Part-66, shall be completed where relevant to the particular aircraft type and licence subcategory applied for. Tasks other than those in appendix II can be considered as replacements when they are relevant. Tasks should be chosen for their variety, complexity, diversity, frequency, safety and novelty etc. (AMC to section 6 of Appendix III to IS-66 item 4).

Each task shall be signed off by the student and countersigned by a designated supervisor.

The logbook should contain a statement that a record of the completed tasks or group of tasks have been selected and completed based upon their variety and complexity. It is recognised that some organisations have less exposure to more technically difficult tasks, line stations for example. Consideration should be taken for the repetition of the tasks that are available, to allow for the requisite experience to be gained in conducting safe maintenance. Substantial repetition must be considered by the Inspector or and be proportionate and within reason. Where possible the organisation should detail tasks that it expects to perform on a regular basis.

NOTE: It should be remembered that potential OJT participants may not have had any previous experience on the type concerned and that the only contact they have had was during Theory and Practical type training.

Task completion and feedback should be observed and stated in the approved log book by the direct supervisor; who should oversee the entire task process and confirm completion in the logbook. The experience should be carried out on the specific aircraft type that is later applied for endorsement.

3.6.5 Simulation

The use of simulators in OJT should not be allowed, as the overall objective is to gain experience of conducting safe maintenance on live aircraft (AMC to section 6 of Appendix III to IS 66 item 3)

3.6.6 OJT Assessment

A final assessment of the completed OJT documentation is carried out to confirm the trainee has completed the required diversity and quantity of tasks (AMC to section 6 of Appendix III to IS-66 item 8). A designated Assessor is to conduct the final assessment of the completed OJT.

The final assessment should detail a statement/confirmation that the completion of the required diversity and quantity of the OJT has been completed and that the supervisor reports and feedback (whether included in the log book or retained separately) have been completed. (See Attachment 1 of this procedure).

Note: Refer Chapter 6 for OJT Assessors appointment, qualification of Assessors, Responsibilities & Job Description, & grant authorization.

3.6.7 Approving the conduct of OJT

1. In order to facilitate the approval of the OJT process by the DGCA Sri Lanka, the organisation shall produce the relevant worksheets or logbook, scheduling the list of tasks to be performed, for each type and a compliance report demonstrating how the OJT meets the requirements of IS 66. This could be as simple as a short narrative referencing the MOE procedures, Supervisors, Assessors, the 50% requirements and the regulation complied with.
2. OJT shall cover a cross section of tasks acceptable to the DGCA Sri Lanka. The OJT tasks to be completed shall be representative of the aircraft and systems both in complexity and in the technical input required to complete that task. While relatively simple tasks may be included, other more complex maintenance tasks shall also be incorporated and undertaken as appropriate to the aircraft type.
3. Each task shall be signed off by the student and countersigned by a designated supervisor. The tasks listed shall refer to an actual job card/work sheet, etc.
4. The final assessment of the completed OJT is mandatory and shall be performed by a designated assessor appropriately qualified.
5. Approval will be indicated through the inclusion and acceptance of procedures in the organisation's approved MOE Section 3.15 as indicated in AMC 145.A.70(a) or referenced in a Procedures manual (AMC to section 6 of Appendix III to IS 66 item 9).
   It shall include the following:
   - the assessment of the completed OJT
   - the certification technique for the completed OJT, e.g. issuing a Certificate of completion

- the qualification/training of the Supervisors and Assessors.

6. These processes and the records produced, will be audited during the organisation's oversight period by the IS 145 Inspector assigned.
7. The OJT shall have been started and completed within the 3 years preceding the application for a type rating endorsement.

3.6.8 Qualifications

1. Supervisors play the biggest role in OJT and they should therefore:
   - Have the relevant certifying privileges for the task.
   - Be competent for the selected tasks
   - Be safety-orientated.
   - Be capable to coach, mentor and when necessary, determine the need for extra training
   - Be designated by the approved maintenance organisation to carry out supervision
2. Assessors should have training and experience on the assessment process being undertaken and be authorised to do so by the organisation (AMC to section 6 of Appendix III to IS 66 item 8).

3. The assessment could conceivably be carried out by an administrator trained in the documentation's usage and completion parameters, e.g. the required number of tasks in the logbook being completed, the correct signatures in the correct boxes etc. This would obviously vary from one organisation to another.

4. The organisation should demonstrate a processes that explains the qualification and authorisation of these personnel and how they are managed.

3.6.9 OJT Log and OJT Report

The supervisor should aim to oversee the complete process of the task, including task completion, use of manuals and procedures, observance of safety measures, warning and recommendations and adequate and appropriate behaviour in the maintenance environment. The supervisor should personally observe the work being performed to ensure the safe completeness and should be readily available for consultation, if needed during the OJT performance. The supervisor should provide a brief report/comments regarding the above.

Each completed OJT Log should include a variety of fault finding, diagnosis, troubleshooting, inspection, check and repair, servicing, deactivation, activation, reactivation, removal/installation and testing. The trainee must be involved in the decision –making process. The trainee must show sufficient hand skills with regard to mechanical, avionic and electrical techniques.

The maintenance organisation should present the student with evidence of OJT completion that can be submitted to the DGCA Sri Lanka, with the certificates of recognition for Theory and Practical training, for their licence to be endorsed with the type rating.

In order to facilitate the verification by the DGCA Sri Lanka, demonstration of the OJT shall consist of

(i) Detailed worksheets/logbook and

(ii) A compliance report (OJT Report) demonstrating how the OJT meets the requirement of this Procedure and IS 66.

The following data shall be addressed on the OJT worksheets/ logbook:

1. Name of Trainee;
2. Date of Birth;
3. Approved Maintenance Organisation;
4. Location;
5. Name of supervisor(s) and assessor, (including licence number if applicable);
6. Date of task completion;
7. Description of task and job card/work order/ tech log, etc;
8. Aircraft type and aircraft registration;
9. Aircraft rating applied for.

The OJT report shall be issued by the Quality Manager in a letter head of the Maintenance Organization according to the format in the Attachment 1 of the OJT procedure which is available in Appendix 3 of this manual.

Nature of the compliance report shall consist of

a) Certificate of Completion
b) A letter/statement of confirmation of completion
c) The completed approved OJT logbook
   Refer samples in Appendix 3

Records of the completed OJT logbooks should be retained by the IS 145 organisation to facilitate subsequent audits by the IS 145 Inspector.

The logbook format and its use are clearly defined in Attachment 2 of this procedure which is available in Appendix 3 of this manual. A CAASL Standard Aircraft Maintenance Technician's logbook or a workplace 'Recent work experience record' worksheet can be utilized for the logging of OJT. This worksheet may be printed off and used by an individual applicant to record evidence of their OJT experience or maintenance tasks performed.

Refer Appendix 3 of this manual for "On the Job Training (OJT) Procedure".

3.7. Conversion of Licence including Group Ratings

Individual aircraft type ratings already endorsed on the aircraft maintenance licence shall remain on the licence and shall not be converted to new ratings unless the licence holder fully meets the requirements for endorsement defined in point 66.A.45 of this IS 66 for the corresponding group/sub-group ratings.

The conversion shall be performed in accordance with the Part I, 66.B.125 of this manual.

Table 1: Aircraft rating requirements

Aircraft groups	B1/B3 licence	B2 licence	C licence
Group 1 ▪ Complex motor- powered aircraft ▪ Multiple engine helicopters ▪ Aeroplanes certified above FL290 ▪ Aircraft equipped with fly-by-wire ▪ Other aircraft when defined by the Agency	(For B1) **Individual TYPE RATING** Type training: ▪ Theory + examination ▪ Practical + assessment **PLUS** ▪ OJT (for first aircraft in licence subcategory	**Individual TYPE RATING** Type training: ▪ Theory + examination ▪ Practical + asessment **PLUS** OJT (for first aircraft in licence category)	**Individual TYPE RATING** Type training: ▪ Theory + examination
Aircraft groups	**B1/B3 licence**	**B2 licence**	**C licence**
Group 2 Subgroups: ▪ 2a: single turboprop aeroplanes ▪ 2b: single turbine engine helicopters ▪ 2c: single piston-engine helicopters (except those classified in Group 1)	(For B1.1, B1.3, B1.4) **Individual TYPE RATING** (type training + OJT) or (type examination + practical experience) **Full SUBGROUP RATING** (type training + OJT) or (type examination + practical experience) on at least 3 aircraft representative of that subgroup **Manufacturer SUBGROUP RATING** (type rating + OJT) or (type examination + practical experience) on at least 2 aircraft representative of that manufacturer subgroup	**Individual TYPE RATING** (type training + OJT) or (type examination + practical experience) **Full SUBGROUP RATING** Based on demonstration of practical experience **Manufacturer SUBGROUP RATING** Based on demonstration of practical experience	**Individual TYPE RATING** Type training or type examination **Full SUBGROUP RATING** Type training or type examination on at least 3 aircraft representative of that subgroup **Manufacturer SUBGROUP RATING** Type training or type examination on at least 2 aircraft representative of that manufacturer subgroup

Group 3 ▪ Piston-engine aeroplanes (except those classified in Group 1)	(For B1.2) **Individual TYPE RATING** (type training + OJT) or (type examination + practical experience) **Full GROUP 3 RATING** Based on demonstration of practical experience **Limitations:** ▪ Pressurised aeroplanes ▪ Metal aeroplanes ▪ Composite aeroplanes ▪ Metal tubing & fabric aeroplanes	**Individual TYPE RATING** (type training + OJT or (type examination + practical experience) **Full GROUP 3 RATING** Based on demonstration of practical experience	**Individual TYPE RATING** Type training or type examination **Full GROUP 3 RATING** Based on demonstration of practical experience
Piston-engine non-pressurised aeroplanes of 2,000 kg MTOM and below	(For B3) **FULL RATING** Based on demonstration of practical experience Limitations: ▪ Metal aeroplanes ▪ Composite aeroplanes ▪ Wooden aeroplanes ▪ Metal tubing & fabric aeroplanes	Not applicable	Not applicable

CHAPTER 4

CONVERSION OF CERTIFYING STAFF QUALIFICATION

4.0 Conversion of AME (BL) to Aircraft Maintenance Licence and Aircraft Maintenance Licence to IS- 66 Aircraft Maintenance Licence

4.1. Conversion of AME (BL) to Aircraft Maintenance Licence

The procedures for the conversion of certifying staff national qualifications referred to in point 66.A.70 of IS 66 to aircraft maintenance licences are described in Subpart D, 66.B.300.

4.1.1 Initiation Process

AME (BL) license was converted to an Aircraft Maintenance Licence license with or without limitations reflecting the scope of the AME (BL) license held.
An AME (BL) licence may be converted under two routes below.

a. Conversion of AME (BL) to AML who passed the appropriate examinations conducted by CAASL as the route maps described in Aviation Safety Notice(ASN) 097.

b. Conversion of AME (BL) to AML who passed the appropriate examinations conducted by CAASL approved technical training facility as in the route map described in ASN 097 under Granted Privileges.

In all cases the AML issued under a new number giving references to the AME (BL) license held previously will be indicated at the space provided in the AML in order to track the history of the license.
The comprehensive procedure pertaining to conversion of licenses is explained in ASN 097.

4.1.2 Limitations and Removal of Limitations on converted AML

AME (BL) license didn't carry limitations. When AME (BL) was converting to AML, it may might be issued with limitations as appropriate. Limitations maybe removed from a basic license or a license with type ratings. Limitations maybe removed during conversion to an Aircraft Maintenance Licence or after conversion to an Aircraft Maintenance Licence

The limitations are explained in the paragraph 3.1 in ASN 097. In case the applicant needs removal of limitations on converted license to perform his maintenance task, he/she has to complete required knowledge examinations and other requirements as stipulated in ASN 097.

Refer to the table in Para 2.1.2.2 to check the completeness of the application.
Payment should be made as per 2.1.2.1

On receipt of an application together with the accompanying AML and supporting documentation, CAASL will verify Application form and any supporting documentation demonstrating compliance with the requirements as per procedure laid down in Para 2.1.2.
Upon satisfactory verification, the CAASL shall remove the applicable limitations in accordance with ASN 097.
The CAASL record system shall be changed accordingly.
See ASN 097 for conversion tables with limitations and removing limitations from a basic licence.

4.1.3 Conversion of Aircraft Maintenance Licence to IS- 66 AML

Aircraft Maintenance Licence issued under ASN 083 and IS 66 1st Edition will be converted to a “IS -66 Aircraft Maintenance Licence” which is referred to in IS 66 2nd Edition, Chapter 3 Appendix VI.

There are two instances where there will be a conversion. They are:

i. Renewal of an AML license after the effective date of IS-66.
ii. Applicant request to convert an AML license to an IS-66 Aircraft Maintenance License even though the existing license is not close to expiry date.

In all cases of conversion the original license number will be retained and used as the license number for the new IS-66 Aircraft Maintenance License issued. This is for license history tracking purpose.

CHAPTER 5

RENEWAL AND RE-ISSUE OF AN AIRCRAFT MAINTENANCE LICENCE VALIDITY

5.1 Renewal of AML

5.1.1 Regulatory Requirement

According to the IS 66, 66.A.40 the aircraft maintenance licence becomes invalid after the duration defined in the licence after its initial issue or last renewal, unless the holder submits his/her aircraft maintenance licence to the DGCA Sri Lanka, in order to verify that the information contained in he licence is the same as that contained in the CAASL records, pursuant to 66.B.120 of the part I of this manual.

Any certification privilege based upon an aircraft maintenance licence becomes invalid as soon as the aircraft maintenance licence is invalid.
The validity of the aircraft maintenance licence is not affected by recency of maintenance experience whereas the validity of the 66.A.20 privileges is affected by maintenance experience as specified in 66.A.20(a).

5.1.2 Application

The holder of an IS 66 Aircraft Maintenance Licence shall complete the relevant parts of CAASL Form CAASL/PL/I/08 (see Appendix 1) and submit it with the holder's copy of the licence to the DGCA Sri Lanka.

Application can be found in CAASL Website ***www.caa.lk***.
Note : Refer Chapter 5 & 6 of Personnel Licensing Office Procedure Manual (SLCAP 3030) to follow the procedure for submission of application to the Licensing System.

Validity Period; There are two options to applicants to select the validity period for renewal of AML. Applicant shall select and indicate the validity period on the application.
1 year Validity – if applicant wishes to remain the validity period for 1 year and renew every year. Fee should be normal fee as mentioned in the fee schedule SLCAP 7100.
Five years validity - if applicant wishes to renew up to 5 years, the validity period will be 5 years and fee should be equal to five times the normal fee.

5.1.3 Acceptance and Review Application

Along with the fully completed application the applicant should pay the applicable fee specified in CAA levy and charges in cash and the respective supporting

documents as explained 2.4.3 & 5.1.2 for the renewal option select by the applicant.
The Civil Aviation Officer (CAO) in charge of AML should complete the checklist CAA/PL/CL/46 as shown in Appendix 2 of this manual. If the application is incomplete return the application to the applicant before the payment of the fees.

Repeat steps 2.4.2to 24.3

After submitting the evaluated application for recommendation to CAI(PLNFC) shall compare the holder's aircraft maintenance license with the CAASL records and verify any pending revocation, suspension or any change action pursuant to Para 66.B.500. If the documents are identical and no action is pending pursuant to Para 66.B.500, the holder's copy shall be renewed for the further duration defined in the Licence issued by DGCA Sri Lanka and the file endorsed accordingly *(refer relevant staff instructions in AML Procedure to determine the validity procedure)*

(b) If CAASL records are different from the aircraft maintenance license held by the license holder:

1. CAI (PLNFC) shall submit to file to SCAI (PLNFC) and to D (TOPL) for further investigation. DGCA Sri Lanka shall investigate the reasons for such differences and may choose not to renew the aircraft maintenance license;

2. DGCA Sri Lanka shall inform the license holder and any known maintenance organisation approved in accordance with Part M Subpart F or SLCAIS-145 that may be directly affected of such fact.

3. DGCA Sri Lanka, if necessary, take action in accordance with point 66.B.500 to revoke, suspend or change the license in question.

The DGCA Sri Lanka should not carry out any investigation to ensure that the licence holder is in current maintenance practice as this is not a condition for the renewal of a licence. Ensuring the continued validity of the certification privileges is a matter for the approved IS 145 / Subpart-F maintenance organization or the certifying staff in accordance with M.A.801 (b) 2.

For the purpose of ensuring the continued validity of the certification privileges the DGCA Sri Lanka may, when periodically reviewing the organizations in accordance with 145.B.30 or M.B.604, or during on-the-spot checks, request the licence holder to provide documentary evidence of compliance with 66.A.20 (b) of IS 66 when exercising certification privileges. Refer Chapter 13 of SLCAP 3030 for further guidance on licensing surveillance.
DGCA Sri Lanka shall compare the holder's aircraft maintenance license with the CAASL records and verify any pending revocation, suspension or change action pursuant to Para 66.B.500. If the documents are identical and no action is pending pursuant to Para 66.B.500, the holder's copy shall be renewed for the further duration defined in the Licence issued by DGCA Sri Lanka and the file

endorsed accordingly.

(b) If CAASL records are different from the aircraft maintenance license held by the license holder:

1. DGCA Sri Lanka shall investigate the reasons for such differences and may choose not to renew the aircraft maintenance license;

2. DGCA Sri Lanka shall inform the license holder and any known maintenance organisation approved in accordance with Part M Subpart F or SLCAIS-145 that may be directly affected of such fact.

3. DGCA Sri Lanka, if necessary, take action in accordance with point 66.B.500 to revoke, suspend or change the license in question.

5.2 Renewal of lapsed license

If the application for renewal of AML was made after the expiry the same renewal procedure applies since the licence alone does not grant the certification privileges and it is the responsibility of the maintenance organisation to check if the applicant has recent experience before issuing certification privileges.
If the date of renewal is lapsed, the DGCA review the individual requests on the basis of;
1. Submission of a valid explanation
2. Make the licence reactivation fee

Repeat steps 5.1.2 to 5.1.3

5.3 Issue of duplicate license for lost/stolen/damaged licenses

The application form should be accompanied with a letter stating the requirement of duplicate license whether it is due to a lost, stolen or damaged license. In case of lost or stolen licenses, a police report should be submitted depending on the circumstances. The damaged license should be submitted if the renewal is to replace a damaged license.

The CAI (PLNFC) should review the application and the history of the applicant to check for similar incidents (lost, stolen or damaged) and the expiry of the said license.

If the application was made before the expiry date of the previous license issued then it may be renewed with same expiry date. (Refer relevant staff instructions in AML Procedure to determine the validity procedure)

Payment should be made as per CAA Fees and charges

Repeat steps in paragraph para 5.1.2 to 5.1.3 of this procedure before issue of a duplicate license.

CHAPTER 6

EXAMINATIONS

6.1 Regulatory Requirement

This section provides the procedure follows by the DGCA Sri Lanka for the examinations conducted for issuance of Aircraft Maintenance Licence according to the Examination Standards IS 66 and 66.B.200 of Part 1 of this Manual.

a) Basic examinations shall follow the standard specified in Appendix I and II to IS 66.
b) Type training examinations and type examinations shall follow the standard specified in Appendix III to IS 66.

6.2 Aircraft Maintenance Licence Basic Examination

An applicant for an aircraft maintenance licence, or the addition of a category or subcategory to such a licence, shall demonstrate by examination a level of knowledge in the appropriate subject modules in accordance with Appendix I this IS 66. The examination shall be conducted by the DGCA Sri Lanka in accordance with Appendix II to IS 66 at a frequency published by the CAASL.

6.2.1 Application

Application for AML examination shall be made on Form CAA/PL/E/09 and refer Chapter 2, para 2.3 for the submission procedure.

6.2.2 Examination Schedule and conduct

The Basic knowledge examinations shall be conducted by the examination unit of the CAASL and confirmed exam dates and venues are published in CAA website. The time table and venue of the examination will be published in advance by issuing an Aeronautical Information Circular (AIC). This notification will be published in CAA webpage in addition to individual letters to applicants.
Records of all examinations are retained on examination database and Records of Individual applicants are retained in hard copy.

At Successfully completion of all exam modules pertinent to the category requested, candidates will be issued with a full result sheet signed by the Director (TOPEL).

6.2.3 Preparation of Question Papers

a) All examination questions shall be kept in a secure manner prior to an examination, to ensure that candidates will not know which particular questions will form the basis of the examination.

b) The DGCA shall appoint

1. Persons who control the questions to be used for each examination.

2. Examiners who shall be present during all examinations to ensure the integrity of the examination.
(Refer 6.4 , appointment/ nomination of Knowledge Examiners)

c) All examination questions shall be kept in a secure manner prior to an examination, to ensure that candidates will not know which particular questions will form the basis of the examination. DGCA shall nominate those persons who control the questions to be used for each examination.

d) All examination papers shall be distributed at the start of the examination to the candidate and handed back to the examiner at the end of the allotted examination time period. The examination papers are not allowed to be removed from the examination room during the allotted examination time period

e) Apart from specific documentation needed for type examinations, only the examination paper may be available to the candidate during the examination

f) The questions must be prepared in English language. Refer GM.66.B.200, Part 1 of this manual for the guidance to prepare question papers.

g) Allocation of the questions and format of the Question Papers
The 'Basic Knowledge Requirements' in Appendix I and 'Basic Examination Standard' in Appendix II to IS 66 comprehensively describes the format of question paper, total number of questions to be included and the time to be allocated for Basic Examination. Allocation of questions to cover Sub-modules for the preparation of final question paper within the frame work specified in Appendix I and II to SLCAIS 66.

6.3 Aircraft Type Examination and Assessment

6.3.1 Examination Standard & procedure

Type Rating examinations and assessments are conducted in accordance with the standards explained in IS 66, Appendix III , section 4 & 5 and IS 147, 147.A.305 Refer Chapter 10 of SLCAP 6100 (Airworthiness Office Procedure Manual) for the procedure of Aircraft Type Examination and Assessment conduct by IS 147 Approved Maintenance Training Organization.

There are two different examination standards as " Examination " and "Assessment", respectively in IS 66 Appendix III, points 4 and 5.

1) Theoretical element examination is called as Examination-
Examination is a written form of demonstration of a certain level of theoretical knowledge by the student based on achievement of the learning objectives, usually performed on completion of a theoretical training course or a portion of a course. The student shall demonstrate, to the levels identified in the table in IS 66, Appendix III, the detailed theoretical knowledge of the aircraft's applicable systems, structure, operations, maintenance, repair, and troubleshooting according to approved maintenance data, as well as the use of manuals and approved procedures, including the knowledge of relevant inspections and limitations. The standard, format, pass mark, etc. are defined in IS 66 , Appendix III, 4.1. The examination shall be performed by the appropriately trained and approved examiner. Examination shall be conducted by the appropriately approved Training Organization.

2) Practical element examination is called as Assessment-
Assessment is a practical form of measuring the competence of the student by evaluating three major factors associated to the learning objectives: knowledge, skills and attitude, usually performed on completion of a practical element of the aircraft type training. The assessment should focus on the competencies relevant to the aircraft type and its maintenance. The principles on how to perform the competence assessments are given in the AMCs to IS 66, Appendix III. an assessment must be performed which must comply with the following,
   a. The assessment shall be performed by designated assessors appropriately qualified.
   b. The assessment shall evaluate the knowledge and skills of the trainee.
   c. Type examination shall be conducted by training organisations appropriately approved under IS147 or by the DGCA Sri Lanka in accordance with section 5 of Appendix III, IS 66.

Regarding IS 66 Appendix III, point 5., "Type Examination Standard" does not apply to the examination performed as part of type training. This point only applies to those cases where type examination is performed as a substitute for type training, which means it is intended for the examinations conducted by (or on

behalf of) the DGCA Sri Lanka on those aircraft that do not require a type training (typically Group 2 and Group 3 aircraft according to Appendix I to the AMCs to IS 66). So, it is true that the examiners authorised by the DGCA Sri Lanka shall not have been involved in the applicant's training. In all other cases AMC to IS 66 Appendix III applies, which means that the roles of the assessor and the instructor may be combined for the practical elements, depending on the size of the organisation.

Regarding the roles of examiners and assessors, these are different functions (which does not prevent that one person can't be authorised both as examiner and assessor). Normally, these functions should not be confused. The expression "The examination shall be oral, written or practical assessment based, or a combination thereof,." applies only for Section 5, i.e. "Type Examination Standard".

6.3.2 Differences between practical assessment and OJT assessment

The practical assessment addresses the practical portion of any type training whereas the OJT assessment addresses the additional practical experience necessary to gain in a true maintenance environment as part of the first type rating in a (sub)category, as illustrated by the table below:

	PRACTICAL ASSESSMENT	**OJT ASSESSMENT** ***For the purpose of 66.A.45(c)***
What/who is assessed:	Candidates following practical element of type training.	Completeness of the OJT.
	Reference: 66.A.45 (a)(b); Appendix III, 4.2.; AMC Appendix III, IS 66	*Reference: 66.A.45 (c); Appendix III, section 6; AMC to Section 6 of Appendix III, IS 66*
Function of assessor:	To perform the final evaluation of the knowledge, skills and attitude of the trainee following the practical element of the type training	To conduct the final assessment of the completed OJT, whereas the candidate's competence is indirectly justified.
	Reference: Appendix III 4.2.; AMC Appendix III, IS 66	*Reference: Appendix III, 6.; AMC to Section 6 of Appendix III 8, IS 66*

Organisation :	• Part-147 • Approved maintenance environment (Part-145, M.A. Subpart F with A rating, manufacturer) under the Part-147 approval • Defined maintenance environment as described in the direct approved procedure by the DGCA Sri Lanka(66.B.130)	Always in a maintenance organisation approved under Part-145 or M.A. Subpart F with A rating
	Reference: Appendix III 1(b), IS 66	*Reference: Appendix III 6 ; AMC to Section 6 of Appendix III 1, IS 66.*
Objectives:	To evaluate if the candidate has gained the required competence in performing safe maintenance, inspections and routine work according to the aircraft documentation and other relevant instructions and tasks as appropriate for the type of aircraft.	To confirm the completion of the required diversity and quantity of OJT, based on the supervisor(s) reports and feedback. It is sufficient that the completion of individual OJT tasks is confirmed by the direct supervisor(s), without being necessary the direct evaluation of the assessor.
	Reference: Appendix III, 3.2, IS 66	*Reference: AMC to Section 6 of Appendix III 7. & 8., IS 66*
Type of assessment:	The assessment may be: • diagnostic (prior to a course), • formative • summative (partial or final evaluation) • performed task-by-task • performed as a group of tasks • partly executed on simulation devices • performed as a final assessment	• Continuous during OJT (confirmed by the direct supervisor) • Summative, as a final evaluation of the completeness of the OJT (based on the supervisor(s) reports and feedback)
	Reference: AMC to IS 66 Appendix III 2)	*Reference: AMC to Section 6 of Appendix III to IS 66*

Qualification of the assessor:	The assessment shall be performed by designated assessors appropriately qualified. It means that the assessors should demonstrate training and experience on the assessment process being undertaken and be authorised to do so by the organisation. Guidance about the qualification is given in AMC to Part-66 Appendix III 3.)	The OJT shall be assessed by designated assessors appropriately qualified. It means that the assessors should demonstrate training and experience on the assessment process being undertaken and be authorised to do so by the organisation. Guidance about the qualification is given in AMC to Part-66 Appendix III 3.)
	Reference: Appendix III 4.2.; AMC to IS 66 Appendix III 3.)	*Reference: Appendix III 6.; AMC to IS 66 Appendix III 3.)*
Procedure included in:	IS-147 MTOE	IS-145 Exposition Manual (chapter 3.15) or "one-off" direct approval
	Reference: Appendix III 1(b); IS-147	*Reference: AMC 145.A.70 (a)*

6.4 Examiners

6.4.1 General

This part provides the Implementation procedure for the Method of Appointment or Delegation including requirements, prerequisite Qualifications & training requirement for the certification of a knowledge Examiners/Practical Assessors for conduct of AML knowledge Examinations/Practical Assessments.

And also this Section contains a 'Delegate Instructions' those are to be complied by all Examiners/Assessors who conduct the examinations/Assessments, to ensure a standardized and consistent approach to the assessment of candidates. Conducting such examinations/assessments shall be carried out by the designated Examiners when so assigned for each test by the DGCA of Sri Lanka directly or in a manner approved by DGCA DGCA of Sri Lanka only during the validity period of his authorization, strictly following the procedure & the Instructions stipulated in this manual and other associated requirements and procedures & shall determine the success or failure of a particular examinations/Assessments only through the criteria established in this manual. Deviation from the procedures is not acceptable without explicit approval of the DGCA.

The scope of authorization applicable to a Knowledge Examiner / Practical Assessor is limited to the conduct of Knowledge Examinations / Practical Assessment identified within the Authorization which they hold and Every Examination/practical Assessment shall be performed and furnish a report upon

the applicant's performance of the test on the form provided for the purpose by the Director.

a) Implementing Standard 050: Personnel Licensing Requirements & Procedures - General Rules.

b) Implementing Standard 66: Personnel Licensing Requirements -Aircraft Maintenance Licence

c) Implementing Standard 147: Requirements to be satisfied by Maintenance Training Organization for Approval

d) Aircraft Maintenance Licensing Procedure Manual; SLCAP 3070

e) Personnel Licensing Procedure Manual; SLCAP 3010

f) Office Procedure Manual; SLCAP 3030

g) Airworthiness Office Procedures Manual . SLCAP 6100

6.4.2 Basic Knowledge Examiners

6.4.2.1 Appointment / Designation of Basic Knowledge Examiners

The Basic Knowledge examination shall be conducted by DGCA Sri Lanka for issuance of AML

DGCA Sri Lanka appoint knowledge examiners for conduct & preparation of knowledge examinations for Aircraft Maintenance Licence Basic Examination. The qualifications and requirement for knowledge examiners are mentioned in Appendix D of SLCAP 3080 – Examination Procedure Manual.

a) Appointment

As all examinations for all applicable Modules are conducted by CAASL, basic knowledge examiners are a designated AW inspector delegated with such responsibility through Job Description under the hand of the DGCA or a qualified personnel selected from the Aviation industry having minimum qualifications and experience as stipulated in Appendix D of SLCAP 3080.

b) Responsibilities

Prime responsibility of the Examiners is to develop & submit questions to the panel to certify each & every question recommending for the input for the question Bank and to confirm the standard of the each module Question Paper & certification of the same for each examination.
Knowledge examiners shall follow the standards published in IS 147.A.205 " Basic Knowledge Examinations".

c) Pre requisite qualifications & Experience

In addition to the requirements published in Appendix D of SLCAP 3080 following requirements shall be completed by the examiners. .

1. Credentials issued by DGCA or Authorization issued by DGCA
2. Before a person is designated as an 'Basic Knowledge Examiner', he / she shall have understanding of:

   - the examination data base
   - ICAO Annex 1, IS 66, IS 147, IS 145, EASA PART 66 /147/145 standards.

6.4.3 Examiners/Practical Assessors for Aircraft Type Examination

A maintenance training organization approved in accordance with IS 147.A.300 to conduct aircraft type training shall conduct the aircraft type examinations or aircraft task assessments specified in IS-66 subject to compliance with the aircraft type and/or task standard specified in IS-66.A.45.
or
Type examination shall be conducted by the DGCA Sri Lanka in accordance with section 5 of Appendix III, IS 66.

And also CAASL may approve aircraft type training conducted by a Non IS 147 Maintenance Training Organizations under Direct Course Approval (66.B.130, Part 1 of this manual) . In such case the DGCA shall ensure the aircraft type examination complies with Appendix III of IS 66 and Chapter 6 of this procedure manual and type examiners are complies with IS 147.A.105 and Chapter 10 of SLCAP 6100.

6.4.3.1 Appointment and pre-requisites

The scope of authorization applicable to a practical assessor is limited to the conduct of practical assessments identified within the MTOE and for which they hold authorization.

The experience and qualifications of knowledge examiners and practical assessors shall be established in accordance with criteria published or in accordance with a procedure and standard agreed by DGCA.
Knowledge examiners shall undergo updating training at least every 24 months relevant to current technology, practical skills, human factors and the latest training techniques appropriate to the knowledge being trained or examined.

1) **knowledge examiners/practical assessors for Type examinations conducted under IS 147 Organization-(Reference 66.A.45)**
   Knowledge examiners/practical assessors shall be appointed for each examination according to the requirements in 147.A.105 and the organization exposition (MTOE 03-07) approved by DGCA Sri Lanka.

The knowledge examiners and practical assessors shall be specified in the organization exposition for the acceptance of such staff by DGCA.

According to IS 147 A.105 & 110 the pre-requisites of knowledge examiners/ practical assessors are mentioned in Chapter 10 of SLCAP 6100 (Airworthiness Office Procedure Manual) and the Training on organizations procedures (MTOE 03-07, para 3 & 5) addressing the Qualifying the Knowledge Examiners / Practical Assessors.

Terms of reference shall be drawn up for all instructors, knowledge examiners and practical assessors in accordance with approved MTOE.

2) **Type examination conducted under Direct Course Approval- (Reference 66.B.130)**
The qualification of instructors, examiners and/or assessors, & the examination and/or assessment procedure, shall be in accordance with "Direct Course Approval Procedure" in 66.B.130 of part 1and section 3.4 of this procedure manual.

3) **Type examination conducted by DGCA (Section 5, Appendix III** IS 66)
DGCA shall appoint qualified Examiners to conduct type examination for Group 2 and/or Group 3 Aircrafts when type training is not required as and when required.
For such examination DGCA shall appoint a qualified examiner to conduct type examination . Before a person is designated as a 'Type Examiner, shall have Valid Aircraft Maintenance Licence or equivalent national licence endorsing the appropriate category / sub category (i.e. B1,1 for B1.1 assessor) and appropriate aircraft type endorsed in the licence or company approvals for the appropriate category / sub category for each aircraft type used for the purpose of the examination/assessment.

Terms of reference shall be drawn up for all knowledge examiners and practical assessors

6.4.3.2 Responsibilities & Job Description

Responsibilities of all above designated examiners are to assess the suitability of an applicant for the issuance of AML on performance of the practical job tasks associated with the respective privileges of the category of applicable AML to ensure compliance with the requirements of CAASL.

Examiners should demonstrate a clear understanding of the examination standard required by Part66and have a responsible attitude to the conduct of examinations such that the highest integrity is ensured.

Duties & Responsibilities of Management Personnel, Instructors, Knowledge Examiners and Practical Assessors are explained in MTOE 01-02 and Maintenance Training Organization Exposition defines the organization and

procedures upon which the CAASL IS 147 Organization approval is based. These procedures are approved by the DGCA Sri Lanka and must be complied with, as applicable, whenever knowledge or practical training is being progressed under the term of the CAASL IS 147 approval.

6.4.3.3 Recurrent Training

According to 147.A.105 (h), Knowledge Examiners / Practical Assessors are required to undergo the update training as fully described in procedure MTOE 03-06 & MTOE 03-06 sub section 11.updating training shall be undergone at least every 24 months relevant to

1) current technology ,
2) practical skills
3) Train the Assessor Refresher
4) human factors Refresher Training
5) Aviation Legislation Refresher
6) Particular Type Refresher
7) the latest training techniques
8) Basic/Type practical log book & simulated practical Training
9) update training on instructional techniques (Practical skills)
10) etc..

Records should show for each examiner when the updating training was scheduled and when it took place.

The updating training may be subdivided during the 24 months into more than one element and may include such activities as attendance at relevant lectures and symposiums

6.4.3.4 The scope of authorization

The scope of authorization applicable to a Knowledge Examiner / Practical Assessor is limited to the conduct of Knowledge Examinations / Practical Assessment identified within the Authorization which they hold. Every practical test shall be performed according to the authorization granted by DGCA

Authorization renewal is processed every 2 years by Approved Maintenance Training Organization which requires 35 hrs recurrent training in Approved Maintenance Training Organization for type training according to the requirements stipulated in IS 147 A 105(h) and procedure in SLCAP 6100, Chapter 10.

6.4.4 Delegation of Authority to Examiners/Assessors

6.4.4.1 Procedure for the designation of Examiners/Assessors (Knowledge& Practical Assessments for the Issuance of AML)

Following the approved procedure of the MTOE organization shall recommend applications and their credentials of individual post holders shall be submitted on

CAASL Form 4 to CAASL satisfying minimum qualifications as per the MTOE 01-02.

On the receipt of such Forms Director (Aircraft Registration and Airworthiness) of CAASL shall evaluate & determine the suitability of the applicants to hold delegated responsibilities as per requirements published by IS 147.

Also organizations shall submit evidence for the necessity of issuance of such authorizations in terms of requirement of minimum numbers or expansion of activities in the area. Discretion of DGCA shall be used in determining if it is really required or otherwise.

After the acceptance of DGCA, Authorization shall be issued approving MTOE.

6.4.4.2 Conditions of Issuance of Delegation of Authority.

Delegated Authority shall be valid for a period of Three years & Individual applicant shall apply for the renewal before the expiry of the authorization with the recommendation of the approved organization.

Preparation of the Knowledge examination Papers shall be as per the applicable standard as per the approved procedure described in MTOE.

Conducting assessments on the task applicable to each type rating practical assessments shall be the responsibility of the panel appointed for each assessment & the collective decision on the performance of an individual applicant shall be reached on the results of the applicant where ever possible.

In the event reaching consensus on such decision among the panel is not possible decision shall be deferred & shall be notified to DGCA immediately.
DGCA shall take appropriate action to resolve such matters including appointing another panel requiring the applicant to reappear for the assessment.

6.4.4.3 System of Supervision by Civil Aviation Authority

Once the CAASL has appointed a CAA examiner or has designated a non-CAA person as examiner/Assessor, it is responsible for closely supervising the subsequent activities of the examiner/Assessor. CAASL established a system for the supervision and control of practical test delivery which ensures consistency and reliability of testing by the designated practical examiners.

The supervision shall be done through time to time visit and witness while doing the examination is conducted through the approved surveillance plan by CAA Inspectors. Monitoring and supervision done for;

- Minimum annual numbers of examinations to be conducted by each examiner
- Observation of examinations, especially practical checks, conducted by the examiner on a periodic basis,
- Recurrent training, etc.

CAASL can monitor performance and apply remediation measures (e.g. training) as necessary. An examiner/Assessor is to demonstrate competency in evaluating the performance of applicants or licence holders during the conduct of checks.

To accomplish the above task, Civil Aviation Authority of Sri Lanka shall monitor the standards of all Practical examiners/assessors by a CAA AW Inspector or Accountable Manager or Examination Manager or Technical Training Manager specifically authorized for this purpose conducting or monitoring a Practical Assessment .

Audit of Approved Training Organization is conducted by DGCA Sri Lanka in accordance with requirement of 147.B.110
Time to time visit and witness while doing the examination is conducted through the approved surveillance plan by CAA AW Inspector. In addition Every 2 years additional form 22 to be completed to cover the entire checklist according to the requirements published in IS 147 and the procedure in Chapter 102.4.4, SLCAP 6100,

The purpose of monitoring the activities of each Practical Examiners/Assessors is to ensure that:

a) His/her reports are complete, accurate and meaningful;

b) His/her Assessment cover the required sequences of the assessment ;

c) His/her conduct of examination/assessment is fair and in conformance with the standards and

d) He/she is acting within the limits of his/her authority;

6.4.4.4 Conditions to be observed for the validity of delegation of Authority.

a) Validity of AMO (IS 145) approval

Continuous validity of AMO (IS 145) approval granted to SLAL AMO shall be observed throughout. Maintenance of continued validity of AMO approval shall depend on continuous maintenance of same standards with respect to Accountable Staff, Technical & Training Staff, and Standards of equipment & facilities, financial status & without witnessing undue fast growth or downsizing.

b) Validity of MTO (IS 147) approval

Continuous validity of MTO (IS 147) approval granted to SLAL Technical Training School shall be observed throughout. Maintenance of continued validity of MTO approval shall depend on continuous maintenance of same standards with respect to Accountable Staff, Training & Examination Staff, and Standards of equipment & facilities, financial status & without witnessing undue fast growth or downsizing.

c) Maintenance of confidentiality of Questions & Question Papers.

Organization shall have a proven track record of maintaining confidentiality & integrity of examinations branch with appropriate security infrastructure & staff committed for integrity. Presence of evidence of any information on misappropriation or such attempts, shall lead to cancellation or revocation of delegated responsibility.

d) Maintenance of Standard approved procedures.

Any departure or a deviation of approved, established procedures in conducting examinations shall not be evident

e) Maintenance of all carders of examination staff

Organization shall endure to maintain minimum staff for examinations and assessments at all times when conducting examinations. If, during any period of examinations, it is envisaged that organization may run short of authorized staff, shall take action to either cancel the conducting of the examination or notify DGCA for alternative actions &/or approvals.

f) Records & reports

Organization shall maintain all its records pertaining to applicants of AM Licenses, their examinations answer scripts & old question papers according to approved procedures.

Deviation or dilation of any procedure in this area shall result in a cancellation of not only the granted Authorization but also the results & cancellation of the corresponding Licenses issued relating to the corrupted examinations.

g) Internal Quality & audits

Organization shall conduct all it's planned & approved schedules of audits in order to maintain the expected quality standard of the examinations branch. Evidence on those audits & other pertinent evidence on the approved procedures on the method of conducting examinations shall be made available to CAASL inspectors who attend to surveillance of the organization.

h) Examiners

Organization shall endure to maintain validity of approval granted to it's examiners & examinations staff. No examiner shall be detailed to conduct examinations for the grant of AM License who has got an expired (not renewed) authorization.

6.4.4.5 Examinations Procedure on Practical Assessments

IS 147 Training Organization shall conduct knowledge examination/practical assessment for all the applicants who are qualified to sit for the Type Rating examination.

IS 147 Training Organization shall nominate a panel for the conduct of Practical Test Assessment as per the MTOE.

IS 147 Training Organization shall forward practical test result in a format of certificate as mentioned in IS 147 to CAASL to issue licence accordingly.

6.4.4.6 Granted Delegation of Authority to conduct Examinations /Assessments for AML Type Rating.

DGCA Sri Lanka has delegated the responsibility of conducting Examinations/assessments for type ratings, as per the legal provision by regulation 60 of the Ceylon Air Navigation Regulations 1955and Para 1.3.1. of IS 50, to the following organizations as indicated below. Examiners and practical assessors are authorized to conduct Practical Test/Assessment on person who has successfully completed the requirements as per standards provided in IS 66 and guide lines provided in SLCAP 3070 and the relevant exposition approved by DGCA. The Practical Test/Assessment should be conducted only on specific instructions issued by DGCA. DGCA shall revoke or cancel the authorization at any time as per para 6.5 below.

a) Approved Maintenance organization (IS 145) to conduct appropriate OJT Assessment for first type rating. The organization shall appoint qualified Assessors to conduct assessment after OJT according to the standards prescribed by DGCA.

b) Sri Lankan Airlines Technical Training School to conduct Theoretical element examination and Practical element examination (Assessment) for type rating through the approved MTOE. The Practical Training shall be conducted at Line and Base Maintenance of Sri Lankan Engineering. Practical training and assessment shall be conducted by the Designated practical instructors and practical assessors respectively authorized by Manager Quality Assurance and approved by DGCA. The Training Organization shall appoint qualified Examiners and practical assessors according to the requirements published in MTOE approved by the DGCA.

6.5 Withdrawal of Authorization

The Examiner Authorization may be withdrawn by DGCA in part or in whole without assigning any reason thereof. In these cases, the DGCA will issue a notice of suspension to the Examiner/Assessor concerned. Where there is an immediate threat to safety this authorization can be withdrawn immediately.

The Director General of Civil Aviation may withdraw an Examiner's/Assessors authority if evidence shows that the Examiner/Assessor has:

a) At any time, acted in a manner which is in contravention of the guidelines contained in approved procedure in breach of the trust placed by the Authority on the examiner/Assessor.

b) Failed to comply with any provision in this manual or failed to maintain any standard as required in this manual or failed to comply with any provision in approved MTOE which is applicable to the respective examination/Assessment.

c) Required instruction to maintain the required standards or to follow proper procedures;

d) Fraudulently used examiner/assessor authority or has acted in any other way that would discredit the DGCA;

e) Breached Civil Aviation rules, Regulations, instructions etc.

If a Civil Aviation Inspector determines during the course of an examination/ practical assessment test or any monitoring, that the Examiner/Assessor no longer meets Civil Aviation standards. The Inspector shall inform the Examiner/Assessor during the de brief of his findings and make a report to DGCA. On receipt of the report from the Inspector, DGCA, shall conduct an inquiry and withdraw the flight test examiner authorization as appropriate.

When it has been alleged that any Examiner/Assessor has acted in a manner specified in above, the DGCA, of Sri Lanka (issuing authority), prior to making a final decision in the matter, shall appoint a committee to investigate in to the matter.

The Examiner/Assessor in question should be given a formal opportunity to respond to the allegations, either verbally or in writing.

6.6 CAASL's Values & Code of Ethics for Designated Examiners/Assessors :

6.6.1 CAASL's Values

a) Assign priority to safety;

b) Excel in the services the CAASL provides to our country;

c) Have a 'can do' attitude in everything the CAASL undertake;

d) Aim to be reliable and realistic;

e) Be willing and able to change in pursuit of continuous improvement;

f) Work together to achieve success;

g) Be open and honest;

h) Promote efficiency and regularity in everything the CAASL does;

i) Trust and respect the colleagues;

j) Value everyone's contribution;

k) Recognize our social responsibilities;

l) Enjoy what the CAASL does

m) Take pride in the CAASL professional approach and

n) Have a balanced home and work environment.

6.6.2 CAASL's Code of Conduct is:

A duty of care to observe standards of professionalism, equality and justice when dealing with other people in the course of their CAASL employment.

a) This means they will: at all times, behave in ways that uphold CAASL's values

b) treat everyone with respect and courtesy;

c) not allow personal relationships to affect professional relationships;

d) refrain from all forms of harassment;

e) refrain from acting in any way that would unfairly harm the reputation of any CAASL employee;

f) where appropriate, intervene constructively where an employee's behavior is clearly in breach of this code, and report any suspected fraud, corrupt, criminal or unethical behavior to the appropriate person within CAASL; and

g) respect an individual's right to privacy and protect and maintain the confidentiality of personal information.

h) An obligation to CAASL in terms of protecting its integrity and reputation, and for the use, care and responsible management of its resources. This means they will, in the course of their CAASL employment:

i) behave honestly and with integrity

j) act with care and diligence;

k) comply with all applicable Sri Lankan laws

l) comply with any lawful and reasonable direction given by someone with the appropriate authority.

m) not make improper use of inside information or their duties, status, power or authority in order to gain, or seek to gain, a benefit for themselves or another person;

n) protect and maintain the confidentiality of all information to which they have access during their course of their CAASL employment;

o) not disclose any information that they obtain or generate in connection with their employment if it is reasonably foreseeable that the disclosure could be prejudicial to the effective working of government;

p) not represent themselves as spokespersons for CAASL or the Sri Lankan Government unless properly authorized to do so;

q) not provide false or misleading information in response to a request for information that is made for official purposes;

r) refrain from engaging in any outside work without permission and/or where such work would compromise their integrity and independence;

s) use CAASL and government resources in a proper manner; and

t) comply with any other conduct requirement prescribed in applicable legislation, policy.

u) obligation to act appropriately when a conflict arises between their self-interest and their duty to CAASL and the Sri Lankan Government. This means they will; disclose, and take reasonable steps to avoid, any conflict of interest (real or apparent) in connection with their CAASL employment

6.6.3 Code of Ethics for Designated Examiners/Assessors

Principle 1

Designated examiners shall have respect for the humanity and dignity of each of their test takers. They shall provide them with the best possible professional consideration and shall respect all persons' needs, values and cultures in the provision of while conducting examinations & testing service.

- Designated examiners shall not discriminate against nor exploit their test takers on grounds of age, gender, race, ethnicity, sexual orientation, language background, creed, political affiliations or religion, nor knowingly impose their own values (for example social, spiritual, political and ideological), to the extent that they are aware of them.

- Designated examiners shall never exploit their clients nor try to influence them in ways that are not related to the aims of the service they are providing or the investigation they are mounting.

- Sexual relations between designated examiners and their test takers are always unethical.

- Teaching and researching testing involving the use of test takers (including students) requires their consent; IT ALSO REQUIRES respect for their dignity and privacy. Those involved should be informed that their refusal to participate will not affect the quality of the DE's service (in teaching, in research, in development, in administration). THE USE OF all forms of media (paper, electronic, video, audio) involving test takers requires informed consent before being used for secondary purposes.

- Designated examiners shall endeavor to communicate the information they produce to all relevant stakeholders in as meaningful a way as possible.
- Where possible, test takers should be consulted on all matters concerning their interests.

Principle 2

Designated examiners shall hold all information obtained in their professional capacity about their test takers in confidence and they shall use professional judgment in sharing such information. Annotation

- In the face of the widespread use of photocopied materials and facsimile, computerized test records and data banks, the increased demand for accountability from various sources and the personal nature of the information obtained from test takers, designated examiners are obliged to respect test takers' right to confidentiality and to safeguard all information associated with the tester-test taker relationship.

- Confidentiality cannot be absolute, especially where the records concern students who may be competing for admissions and appointments. A careful balance must be maintained between preserving confidentiality as a fundamental aspect of the tester's professional duty and the wider responsibility the tester has to society.

- Similarly, in appropriate cases, the tester's professional colleagues also have a right to access data of test takers other than their own ion order to improve the service the profession offers. In such cases, those given access to data should agree to maintain confidentiality.

Principle 3

Designated examiners should adhere to all relevant ethical principles embodied in national and international guidelines when undertaking any trial, experiment, treatment or other research activity.

Annotation

- Examine/testing progress depends on research, which necessarily involves the participation of human subjects. This research shall conform to generally accepted principles of academic inquiry, be based on a thorough knowledge of the professional literature; and be planned and executed according to the highest standards.

- All research must be justified; that is proposed studies shall be reasonably expected to provide answers to questions posed.

- The human rights of the research subject shall always take precedence over the interests of science or society.

- Where there are likely discomforts or risks to the research subject, the benefits of that research should be taken into account but must not be used in themselves to justify such discomforts or risks. If unforeseeable harmful effects occur, the research should always be stopped or modified.

- An independent Ethics Committee should evaluate all research proposals in order to ensure that studies conform to the highest scientific and ethical standards.

- Relevant information about the aims, methods, risks and discomforts of the research shall be given to the subject in advance. The information shall be conveyed in such a way that it is fully understood. Consent shall be free, without pressure, coercion or duress.

- The subject shall be free to refuse to participate in or to withdraw from, the research at any time prior to publication of research results. Such refusal shall not jeopardize the subject's treatment.

- Special care shall be taken with regard to obtaining prior consent in the case of subjects who are in dependent relationships (for example, students, the elderly, and proficiency challenged learners).

- In the case of a minor, consent shall be obtained from a parent or guardian but also from the child if he is of sufficient maturity and understanding.

- Confidential information obtained in research shall not be used for purposes other than THOSE specified in the approved research protocol.

- Publication of research results shall be truthful and accurate.

- Publication of research reports shall not permit identification of the subjects who have been involved.

Principle 4

Designated examiners shall not allow the misuse of their professional knowledge or skills, in so far as they are able.

Annotation

- Designated examiners shall not knowingly use their professional knowledge or skills to advance purposes inimical to their test takers' interests. When the progress of the tester's intervention is not directly to the benefit of the test takers (for example when they are asked to act as trial subjects for a proficiency test designed for some other situation), its nature shall be made absolutely clear.
- Non-conformity with a society's prevailing moral, religious etc values, or status as an unwelcome migrant, shall not be the determining factor in assessing ability.
- Whatever the legal circumstances, designated examiners shall not participate, either directly or indirectly in the practice of torture or other forms of cruel, inhuman or degrading punishment (see Declaration of Tokyo 1975).

Principle 5

Designated examiners shall continue to develop their professional knowledge, sharing this knowledge with colleagues and other Examiners.

Annotation

- Continued learning and advancing one's knowledge are fundamental to the professional role; failure to do so constitutes a disservice to test takers.

- Designated examiners shall make use of the various methods of continuing education that are available to them. These may involve participation in continuing testing/examinations programmes and professional conferences, and the regular reading of relevant professional publications.

- Designated examiners shall take the opportunity to interact with colleagues and other relevant professionals as an important means of developing their professional knowledge.

- Designated examiners shall share new knowledge with colleagues by publication in recognized professional journals or at meetings.

- Designated examiners shall be expected to contribute to the education and professional development of designated examiners in training and to the drawing up of guidelines for the core requirements of that training.

- Designated examiners shall be prepared to contribute to the education of students in the WIDER ATC professions.

Principle 6

Designated examiners shall share the responsibility of upholding the integrity of the testing profession.

Annotation

- Designated examiners shall promote and enhance the integrity of their profession by fostering a sense of trust and mutual responsibility among colleagues. In the event of differences of opinion, viewpoints should be expressed with candor and respect rather than by mutual denigration.

- Designated examiners develop and exercise norms on behalf of society. As such theirs is a privileged position which brings with it an obligation to maintain appropriate personal and moral standards in their professional practice, and in those aspects of their personal life which may reflect upon the integrity of that practice.

- Designated examiners who become aware of unprofessional conduct by a colleague shall take appropriate action; this may include a report to the relevant authorities.

- Failure to uphold this Code of Ethics will be regarded with the utmost seriousness and could lead to severe penalties including withdrawal of designation.

Principle 7

Designated examiners in their societal roles shall strive to improve the quality of testing, assessment and teaching services, promote the just allocation of those services and contribute to the education of society regarding ATC proficiency.

Annotation

- Designated examiners shall be prepared by virtue of their knowledge and experience to advise those responsible for the provision of testing services.

- Designated examiners shall be prepared to act as advocates and join with others in ensuring that testing test takers have available to them the best possible testing service.
- Designated examiners shall be prepared to work with advisory, statutory, voluntary and commercial bodies that have a role in the provision of testing services.

- Designated examiners shall take appropriate action if services, by reason of fiscal restriction or otherwise, fall below minimal standards. Exceptionally, designated examiners may have to dissociate themselves from such services provided that this is not harmful to their test takers.
- Designated examiners shall be prepared to interpret and disseminate relevant scientific information and established Professional opinions to society. In so doing, designated examiners shall clarify their status as either spokespersons

for a recognised professional body or not. If the views expressed are contrary to those generally held, they shall so indicate.

- It is reasonable for designated examiners to make scientifically substantiated contributions to public debate on sensitive socio-political issues, such as race, disadvantage and child rearing.

- Designated examiners shall differentiate between their role as educators based on professional knowledge and their role as citizens.

- In fulfilling their responsibilities under this principle, designated examiners shall take care to avoid self-promotion and the denigration of colleagues.

- Designated examiners shall make clear that they do not claim (and are not seen to claim) that they alone possess all the relevant knowledge.

Principle 8

Designated examiners shall be mindful of their obligations to the society within which they work, while recognizing that those obligations may on occasion conflict with their responsibilities to their test takers and to other stakeholders.

Annotation

- When test/examination results are obtained on behalf of institutions (government departments, professional bodies, universities, schools, companies) designated examiners have an obligation to report those results accurately, however unwelcome they may be to the test takers and other stakeholders (families, prospective employers etc).

- As members of the society in which they work, designated examiners should recognize their obligation to the testing requirements of that society, even when they may not themselves agree with them. Where their disagreement is of sufficient strength to qualify as a conscientious objection, they should have the right to withdraw their professional services.

Principle 9

Designated examiners shall regularly consider the potential effects, both short and long term on all stakeholders of their projects, reserving the right to withhold their professional services on the grounds of conscience.

Annotation

- As professionals, designated examiners have the responsibility to evaluate the ethical consequences of the projects submitted to them. While they cannot consider all possible eventualities, they should engage in a thorough evaluation

of the likely consequences and, where those consequences are in their view professionally unacceptable, withdraw their services. In such cases, they

should as a matter of course consult with fellow designated examiners to determine how far their view is shared, always reserving the right, where their colleagues take a different view, to make an individual stand on the grounds of conscience.

6.6.4 Authorizations granted by DGCA

The CAASL has granted authority to Sri Lankan Airlines Technical Training School to conduct Basic and Type Courses Hence, the Courses conducted at the Training School are considered to be Approved Courses.
By approving Type Training, authorization has been granted to conduct Knowledge examination and Practical Assessments for Type Training and Rating.
Sri Lankan Airlines Technical Training School operates under the Maintenance Training Organization Exposition (MTOE) approved by the CAASL.

MTOE shall contain details of all the persons approved for the conduct of knowledge examinations conducted on the delegated authority of DGCA Sri Lanka. Also MTOE shall contain details of persons approved for the conduct of practical assessment & the procedure for the conduct of such assessments adopted in granting such delegation of authority as per the following guide lines.

The CAASL has granted authority to Quality Department of Maintenance organizations approved under IS 145 to conduct OJT and OJT Assessment for first Type Rating on the Aircraft operated by the Airline. Such Maintenance organizations shall follow the OJT procedure which is in Appendix 3 and shall ensure that qualifications and experience are in accordance with the requirements published in IS 66 and this manual. List of all OJT Assessors shall be forwarded to DGCA prior to start OJT for approval.
The supervision of practical test delivery shall be done through time to time visit and witness while doing the examination is conducted through the approved surveillance plan by CAA CAASL AW Inspectors to ensure the consistency and reliability of testing by the designated OJT Assessors.

CHAPTER 7

APPROVED MAINTENEC TRAINING ORGANIZATIONS

7.1 Regulatory Requirement

The issuance of an approval for a training organization and the continued validity of the approval shall depend upon the training organization being in compliance with the requirements of section 1.2.8 of IS 050 and IS 147.

The Implementing Standard 147 (IS 147) shall be applicable to every organizations involved in the Aircraft maintenance training (Basic and/or aircraft Type).

IS 147 establishes the requirements to be met by organizations seeking approval to conduct aircraft maintenance training and applicable examination as specified in IS-66. Prior to issuing approval of Maintenance Training Organization, the DGCA needs to be satisfied that the applicant comply to all the requirements of relevant legislation, subsidiary legislation and associated requirements published by the DGCA in terms of IS 147.
Visit ***www.caa.lk*** to refer IS 147.

SLCAP 6100 Airworthiness Office Procedure Manual , section 2, Chapter 10 establishes the administrative procedures to be followed by CAASL when exercising its tasks and responsibilities regarding issuance, continuation, change, suspension or revocation of maintenance training organization approvals.
Visit www.caa.lk to refer SLCAP 6100 and the Technical Library of the CAASL.

7.2 Application

An applicant wishing to obtain MTO Approval (IS-147 Organization) may show express of interest via sent to a letter addressed to DGCA. Applications for IS-147 Maintenance Training Organization Approval (initial/renewal/change of ratings) shall be received on CAASL Form 12 which is found in Appendix A, Section 3 of SLCAP 6100.

An application for an approval or change to an approval shall include the following information:

1. The registered name and address of the applicant;
2. The address of the organization requiring the approval or change to the approval;
3. The intended scope of approval or change to the scope of approval;
4. The name and signature of the accountable manager;
5. The date of application.

The application should be included a copy of maintenance training organization exposition /training control manual as specified in the IS 147.
Acceptance of application and review of the application shall be done in accordance with the procedure in section 10.2.2 of SLCAP 6100.
Certification procedure shall be done in accordance with the procedure established in 10.2.3 & 10.2.4 of SLCAP 6100.

7.3 Issue of for Approval

Upon receipt of an application, the DGCA shall:

1. Review the maintenance training organization exposition using the Check list CAA/AW/CL/05 – MTOE Review Document; and
2. Verify the organization's compliance with the requirement of IS 147 using the checklist CAA/AW/CL/04- 147 MTOE Compliance Check List
3. Approval Certificate shall be issued in accordance with the procedure established in 10.1.6 & 10.2.4.2 of SLCAP 6100.
4. As mentioned in 10.1.8 of SLCAP 6100, The maintenance training organization approval certificate format shall be as detailed in Section 3 of SLCAP 6100.

(Refer SLCAP 6100, Section 3, Appendix A- Standards Forms, CAASL Form 11 for MTO Approval Certificate).
(Refer *SLCAP 6100, Section 3, Appendix C- Check lists)*

Changes within the approved maintenance training organization shall be processed in accordance with the procedure published in 10.2.4.3 of SLCAP 6100.

7.4 Maintenance Training Organization Exposition

(a) A statement signed by the accountable manager confirming that the maintenance training organization exposition and any associated manuals define the maintenance training organization's compliance with this IS and shall be complied with at all times.

1. A statement signed by the accountable manager confirming that the maintenance training organization exposition and any associated manuals define the maintenance training organization's compliance with this IS and shall be complied with at all times.
2. The title(s) and name(s) of the person(s) nominated in accordance with IS 147.A.105 (b).
3. The duties and responsibilities of the person(s) specified in sub paragraph 2, including matters on which they may deal directly with the CAASL on behalf of the maintenance training organization.
4. A maintenance training organization chart showing associated chains of responsibility of the person(s) specified in paragraph (a) (2).

5. A list of the training instructors, knowledge examiners and practical assessors.
6. A general description of the training and examination facilities located at each address specified in the maintenance training organization's approval certificate, and if appropriate any other location, as required by IS 147.A.145(b).
7. A list of the maintenance training courses which form the extent of the approval.
8. The maintenance training organization's exposition amendment procedure.
9. The maintenance training organization's procedures, as required by IS 147.A.130 (a).
10. The maintenance training organization's control procedure, as required by IS 147.A.145(c), when authorized to conduct training, examination and assessments in locations different from those specified in IS 147.A.145 (b).
11. A list of the locations pursuant to IS 147.A.145 (b).
12. A list of organizations, if appropriate, as specified in IS 147.A.145 (d).

(b) The maintenance training organization shall ensure that the training organization's exposition is amended as necessary to keep the information contained therein up to date.

(c) The maintenance training organization's exposition and any subsequent amendments shall be approved by DGCA.

(d) Notwithstanding paragraph (b) minor amendments to the exposition may be approved through an exposition procedure (hereinafter called indirect approval).
A recommended format of the exposition is included in AMC Appendix 1 of Is 147.

A change in the maintenance training organization's exposition requires the DGCA to establish that the procedures specified in the exposition are incompliance with IS 147 and then to establish if these are the same procedures intended for use within the training facility

7.5 Training programmes

A maintenance training organization shall be approved to carry out basic training course and IS-66 aircraft type and/or task training subject to compliance with the standard specified in IS 66.A.45.

7.5.1 The approved basic training course

The organization shall conduct Basic Training Course according to the requirements in IS 147.A.200.
The approved basic training course shall consist of knowledge training, knowledge examination, practical training and a practical assessment. Basic practical

assessments shall be carried out during the basic maintenance training course by the nominated practical assessors at the completion of each visit period to the practical workshops/maintenance facility
Basic Training Course duration shall be in accordance with “Regulation Appendix I of IS 147”.

7.5.2 The approved aircraft type/task training

A maintenance training organization shall be approved to carry out IS-66 aircraft type and/or task training subject to compliance with the standard specified in IS 66.A.45.
A maintenance training organization approved in accordance with IS 147.A.300 to conduct aircraft type training shall conduct the aircraft type examinations or aircraft task assessments specified in IS-66 subject to compliance with the aircraft type and/or task standard specified in IS-66.A.45.(Refer Chapter 3 of this manual for Type Examination standards).
Any additional basic or aircraft type training courses requires the maintenance training organization to make a new application to the DGCA together with the submission of an amended exposition.

7.6 Quality assurance system

The training organization shall establish a quality assurance system, acceptable to the CAASL granting the approval, which ensures that training and instructional practices comply with all relevant requirements.

The organization shall establish a quality system in accordance with 147.A.130 of IS 147 including:

1. An independent audit function to monitor training standards, the integrity of knowledge examinations and practical assessments, compliance with and adequacy of the procedures, and

2. A feedback system of audit findings to the person(s) and ultimately to the accountable manager referred to in IS 147.A.105(a) to ensure, as necessary, corrective action.

The primary objective of the quality system is to enable the training organization to satisfy itself that it can deliver properly trained students and that the organization remains in compliance with IS 147.

7.7 Facilities

The facilities and working environment shall be appropriate for the task to be performed and be acceptable to the CAASL in accordance with requirements published in 147.A.100 of IS 147.

The training organization shall have, or have access to, the necessary information, equipment, training devices and material to conduct the courses for which it is approved.
The training organization shall have appropriate Instructional equipment as requirements published in IS 147.A.115.
The training organization shall provide Training Material to the student as stipulated requirements in IS 147.A.120.
Any change of location of the maintenance training organization requires the organization to make a new application to the DGCA together with the submission of an amended exposition. The DGCA should follow the procedure specified in 147.B.110 (a) and (b) in so far as the change affects such procedure before issuing a new MTO approval certificate

7.8 Personnel

The organization shall appoint an accountable manager who has corporate CAASL for ensuring that all training commitments can be financed and carried out to the standard required by IS 147.

The maintenance training organization shall appoint and or contract sufficient staff to plan/- perform knowledge and practical training, conduct knowledge examinations and practical assessments in accordance with the approval given and the procedure established in SLCAP 6100, Chapter 10. The requirement published in IS 147, A.105.

The experience and qualifications of instructors, knowledge examiners and practical assessors shall be established in accordance with criteria published or in accordance with a procedure and to a standard agreed by DGCA Sri Lanka.

The training organization shall ensure that Instructors and knowledge examiners shall undergo updating training at least every 24 months relevant to current technology, practical skills, human factors and the latest training techniques appropriate to the knowledge being trained or examined.

The knowledge examiners and practical assessors shall be specified in the organization exposition for the acceptance of such staff. Examiners should demonstrate a clear understanding of the examination standard required by Part66and have a responsible attitude to the conduct of examinations such that the highest integrity is ensured.

The organization shall maintain a record of all instructors, knowledge examiners and practical assessors. These records shall reflect the experience and qualification, training history and any subsequent training undertaken

Instructors, knowledge examiners and practical assessors should be provided with a copy of their terms of reference

7.9 Records

The CAA SL shall establish a system of record-keeping that allows adequate traceability of the process to issue, renew, continue, vary, suspend or revoke each approval

The Training organization shall maintain a record of all instructors, knowledge examiners and practical assessors. These records shall reflect the experience and qualification, training history and any subsequent training undertaken.

The organization shall keep all student training, examination and assessment records for at least five years following completion of the particular student's course.

The records for the oversight of maintenance training organizations shall include as a minimum:

a) The application for an organization approval.

b) The organization approval certificate including any changes.

c) A copy of the audit program listing the dates when audits are due and when audits were carried out.

d) Continued oversight records including all audit records.

e) Copies of all relevant correspondence.

f) Details of any exemption and enforcement actions.

g) Any report from other NAAs relating to the oversight of the organization

h) Organization exposition (MTOE) and amendments.

7.10 Oversight

CAASL shall maintain an effective oversight programme of the approved training organization to ensure continuing compliance with the approval requirements.

7.10.1 Audit

1. The audit should be conducted on the basis of checking the facility for compliance, interviewing personnel and sampling any relevant training course for its conduct and standard as procedure established in 10.1.6.1 of SLCAP 6100.
2. The audit report should be made on a DGCA Form 22 (see appendix B).

   According to the procedure established in 10.1.7 of SLCAP 6100, each organization must be completely audited by CAASL, for compliance with IS 147

at periods not exceeding 24 months. Findings shall be processed in accordance with IS 147.B.130.

CAASL shall follow the audit procedure for initial organization approval in accordance with 10.2.4 of SLCAP 6100.

7.10.2 A continued surveillance

A continued surveillance plan shall be developed by the Director (Aircraft Registration and Airworthiness) taking into consideration follow up of corrective actions and accepted by DGCA. The continued surveillance plan shall be communicated to the organization by the D (AR&AW).

The CAASL form 22 recommendation must be completed every 24 months. The Director (Aircraft Registration and Airworthiness)/Airworthiness Inspector must carry out a quality review of the form 22 and countersign the form.

Refer 10.2.4.4 of SLCAP 6100 for the CONTINUED SURVEILLANCE PROCEDURE.

7.11 Evaluation and checking

When DGCA has authorized an approved training organization to conduct the testing required for the issuance of a licence or rating in accordance with the MTOE, it should include:

a) name of the personnel with testing authority and scope of the authority;
b) role and duties of the authorized personnel; if the school has been given authority to appoint personnel to conduct the testing required for the issuance of a licence or rating, the minimum requirement for appointment as well as the selection and appointment procedure; and d) applicable requirements established by the Licensing Authority such as:
c) procedures to be followed in the conduct of checks and tests; and
d) Methods for completion and retention of testing records as required by the Licensing Authority.

7.11.1 Basic Practical Assessment

a) According to the IS 147.A.205 Basic practical assessments shall be carried out during the basic maintenance training course by the nominated practical assessors at the completion of each visit period to the practical workshops/maintenance facility.
b) The student shall achieve an assessed pass with respect to IS 147.A.200 (e).

7.11.2 Basic Practical Assessment

a) According to the IS 147.A.205 Basic practical assessments shall be carried out during the basic maintenance training course by the nominated practical assessors at the completion of each visit period to the practical workshops/maintenance facility.
b) The student shall achieve an assessed pass with respect to IS 147.A.200 (e).

7.11.3 Aircraft Type Examinations and Task Assessments

A maintenance training organization approved in accordance with IS 147.A.300 and approved MTOE to conduct aircraft type training shall conduct the aircraft type examinations or aircraft task assessments specified in IS-66 subject to compliance with the aircraft type and/or task standard specified in IS-66.A.45

7.12 Limitation, suspension and revocation

A Maintenance Training Organization Approval shall be limited, suspended or revoked by DGCA if the:

a) Certificate becomes invalid under the conditions specified in IS-147
b) Organization fails to comply with Civil Aviation Fees and Charges
c) Approval is suspended an on reasonable grounds in the case of potential safety threat; or
d) Organization fails to comply with the IS-147.130 Findings, depending on the nature of finding.

7.13 Continued validity

(a) An approval shall be issued for a maximum period of one year. It shall remain valid subject to:

1. The organization remaining in compliance with IS 147, in accordance with the provisions related to the handling of findings as specified under IS 147.B.130 in SLCAP 6100; and
2. The DGCA Sri Lanka being granted access to the organization to determine continued compliance with IS 147; and
3. The certificate not being suspended, surrendered or revoked.

(b) Upon suspension, surrender or revocation, the approval shall be returned to the DGCA Sri Lanka.

CHAPTER 8 - SURVEILLANCE

8.1 Surveillance on Holders of AM Licenses & Privileges

According to the procedure in para 12.5, Chapter 12 in SLCAP 3030 Licensing Inspectors/AW Inspectors shall conduct regular Inspections in the Industry on the following matters satisfying CAASL safety oversight obligations of Sri Lanka as a signatory state to Chicago Convention.

1. Following conditions of Issue of Licenses shall be verified during inspections conducted according to schedules as approved by the DGCA, by Licensing Inspectors,

2. Validity of License & validity of the specified Area of work as per approved AMO manual.

3. Responsibilities associated with ratings of individual license holders shall tally with records of certification to release to services.

4. Resent experience requirements have been observed according to EPM (Engineering Procedure Manual).

5. Competency associated with the License or Rating as per privileges of AML

6. Any evidence of Use of problematic substances or Alcohol as per Para 1.2.6 & 1.2.7 of IS 50 & IS 35.

7. If privileges are exercised according to procedures & requirements of approved maintenance organization.

8. Any other requirements specified by the approved AMO.

8.2 Surveilance on Approved Training Organizations

Surveilance of the Training School is carried out by the Airworthiness Inspectors/Engineers as per their approved Surveilance Plan using the Check sheet CL-AW-12 in the Appendix 2 of this manual.
Refer 10.2.4.4 of SLCAP 6100 for the CONTINUED SURVEILLANCE PROCEDURE.

8.3 System of Supervision on practical test delivery

Refer 6.4.4.3 of Chapter 4.

APPENDIX LIST

1. Appendix 1- Applications and Forms
2. Appendix 2- Check Lists
3. Appendix 3- Special Instructions, Guidance & procedures
4. Appendix 4- level of involvement & delegation of authority

APPENDIX 1

Note : Refer PEL Office Procedure Manual SLCAP 3030 Appendix D to find Applications.

1. Application for Initial/Amendment/Renewal of IS 66 Aircraft Maintenance License (AML) - New
   CAASL Form CAASL/PL/I/08 (FORM 19) which is available on CAASL website www.caa.lk will be used for all purposes of AML referred in Appendix V of IS 66 2nd Edition Rev 00.

   Following New Application is effective from 1st of April 2018 and this document supersedes the old applications used for AML issuance, AML type Ratings, AML renewal & AML additional category endorsement and those applications shall be treated as null and void after the LIMS will be fully ready.

   CAASL AML
   Application for IS 66-

2. Aircraft Maintenance Personnel Log Book/Worksheet Evaluation Record Sheet" CAA/PL/M/22

   AML experience
   evaluation sheet2.doc

3. Direct Course approval-CAASL Form CAASL/PL/I/29

   CAA-PL-I-29 -
   Application for appro

APPENDIX 2

Note : Refer PEL Office Procedure Manual SLCAP 3030 Appendix B to find checklist.

1. Initial Issue check list – New
   Following new checklists are effective from 1st of April 2018 and these checklists supersedes old other checklists and old checklists shall be treated as null and void.

Check list for Initial Issuance B1.1.docx
Check list for initial issuance B1.2.docx
Check list for Initial Issuance B1.3.docx
Check list for Initial Issuance B1.4.docx
Check list for initial issuance B 2.docx
Check list for initial issuance B 3.docx

2. Type rating issue check list

Check list for Endorsement of Type

3. Renewal check list

Check list for renewal of AML.docx

4. Licence surveillance checklist

Licence Surveillance Checklist.docx

5. MTO approval check list – Refer SLCAP 6100

6. Direct course approval CL check list CAA/PL/CL/81

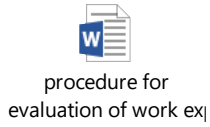
CAA-PL-CL-81 - Type Training Approv

7. Issuance of FLVC for AML checklist

Check list for issuance of FLVC for A

Appendix 3

1. Procedure for evaluation of work experience to issue AML



1. PURPOSE

This procedure establishes the general principles to be followed by the CAASL for evaluation of work experience for processing the initial issuance of Aircraft Maintenance Licence in accordance with relevant provisions of CAASL IS 66.

2. LEGISLATION

Applicable Legislations

Origin	Legislation
Primary Legislation	Act 14/2010
ICAO	Annex 1, Chapter 4
CAASL	IS -66

3. RESOURCES

3.1 The number of staff must be ***adequate and*** appropriate to carry out the required functions as detailed in this procedure.

Airworthiness Inspector involved in the AML process must have;

a) Required expertise knowledge in the application of appropriate aviation safety standards
   i) Applicable Regulations of Aircraft Maintenance Licensing
   ii) Relevant Parts of ASNs/ISs applicable to issue AML.
   iii) Dedication and role of the Airworthiness Inspector for this activity.
   iv) Responsibilities to be performed by him/her for the completion of the task.

b) Knowledge of the aircraft maintenance standards and practices.

c) A relevant engineering degree or an aircraft maintenance engineering qualification with additional qualification. 'relevant engineering degree means an engineering degree from aeronautical, mechanical, electrical, electronic,

avionic or other studies relevant to the maintenance and continuing airworthiness of aircraft/aircraft components

d) In addition to technical competency, Airworthiness Inspector should have a high degree of integrity, be impartial in carrying out the task, be tactful, and have a good understanding of human nature.

e) Airworthiness Inspector should undergo continuation training that ensures the AWIs remain competent to perform their allocated tasks.

4. APPLICATION FOR INITIAL ISSUE OF AML LICENSE

4.1 INITIATION PROCESS

A. The applicant who applies the Aircraft Maintenance License shall submit his application

Along with following documents.

a. Copy of the Birth Certificate.
b. Copy of the NIC or Passport.
c. Basic Knowledge requirement (as per SLCAIS 66.A.25).
d. Basic Experience requirement (as per SLCAIS 66.A.30).
e. The Logbook showing details of practical experience. The Logbook entries should be made in compliance with detail description covering in the Appendix III.
f. Details of Type training and their certificates, on the type of aircraft requested to be endorsed.

Failure to provide the above documents will not entertain further processing of application.

4.2 ACTIONS REQUIRED

Upon receipt of the application form, fee and the respective supporting documents as explained in the paragraph 4.1.1 of this Procedure, the Personnel Licensing Inspector shall complete the checklist of “Issuance of AML”.

The Logbook showing details of practical experience shall be forwarded to designated Airworthiness Inspector to evaluate the experience requirement.

The Airworthiness Inspector shall check that the experience records and evaluate the logbook records are in compliance with the format and completing instructions given in the Appendix III to this Procedure.

Appendix II of this procedure provides the required guidance for the CAA inspectors to review theoretical and practical training periods/hours of the technical training courses of training schools. The basis of allocating questions to Sub-modules on

lecture hours and level of question also to be selected using guidance in the respective table.

After evaluation of the Experience requirement, Airworthiness Inspectors shall complete the form CAA/PL/M/22 "Aircraft Maintenance Experience Evaluation Record Sheet" and write his comments and shall certify by the designated Senior Airworthiness Inspector or Designated Officer on the attached Form no CAA/PL/M/22 in Appendix I . completed form shall be forwarded to D(TOPL) for licence process.

5. ASSESMENT OF WORKSHEET/LOGBOOK SUBMITTED FOR AML LICENCE

The experience requirement to apply for the AML is given under paragraph 6 to the ASN 083. For all categories the practical experience must be on operating aircraft representing the cross section of respective maintenance task. The task shall be carried out at least once under the direct supervision of an appropriately rated Aircraft Maintenance Engineer, who has superior knowledge over the applicant on the task being performed. The means of document proving the practical experience is Worksheet/Logbook and all applicants must submit at least one year of the required recent maintenance experience on aircraft of the category/subcategory for which the initial aircraft maintenance licence is sought. For subsequent category/subcategory additions to an existing aircraft maintenance licence, the additional recent maintenance experience required may be less than one year, but must be at least six months. The required experience must be dependent upon the difference between the licence category/subcategory held and applied for. Such additional experience must be typical of the new licence category/subcategory sought.

Every applicant for the AML basic licence should submit his worksheets compiled as a Logbook in the order of detailed description given in the Appendix III to this manual. The Worksheets for the AML basic licence gained under approved training institute should comprised Basic Training records and Maintenance Training records. The Basic Training records should be completed during the approved course and the Maintenance Experience record needs to cover remaining experience training explained under the Experience Requirements in the ASN 083.

The Type Training and Supplementary Training requirements explained in Appendix III to this manual are for the applicant who seeks type endorsements in their AML Basic License.

The applicant for the AML Basic licence should complete almost all the Basic Training activities listed under Basic skills of Appendix III. The maintenance experience on in-service aircraft should be recorded covering at least 75% of the activities listed under the 'Aircraft Type Practical Experience List of Tasks' in the Appendix III.

Note; At least two jobs to be recorded under each task for the acceptance of worksheets in the AML examination. Failure to meet this requirement may have the tendency of rejecting the AML application by the Inspector who has been authorized to review worksheets submitted together with the application.

6. AUTHORISATION TO ASSESS WORKSHEET/LOGBOOK

Airworthiness Inspectors of the CAASL who has fulfilled the requirements as per 3.1 of this procedure are appointed as Assessors by DGCA and they are assign to assess the experience and skills listed in the Logbook.

Assessed Logbook/worksheets shall be submitted together with AML application form for the review and acceptance. The review to be done by Senior Airworthiness Inspector or Director Airworthiness and he/she shall be certified the status of the applicant in the form CAA/PL/M/22 “Aircraft Maintenance Experience Evaluation Record Sheet”.

APPENDIX I

Procedure for evaluation of work experience to issue AML

CIVIL AVIATION AUTHORITY OF SRI LANKA

ISSUANCE OF AIRCRAFT MAINTENANCE LICENCE

EXPERIENCE EVALUATION RECORD SHEET

(*Reference: experience as per IS 66.A.30*)

1. Evaluation

Name:	Category:	Log book reference No :

S. No	Respective ATA Chapter	Year				Year				Year				Year				Year				Year				Aircraft Type	Remarks
		1st Q	2nd Q	3rd Q	4th Q	1st Q	2nd Q	3rd Q	4th Q	1st Q	2nd Q	3rd Q	4th Q	1st Q	2nd Q	3rd Q	4th Q	1st Q	2nd Q	3rd Q	4th Q	1st Q	2nd Q	3rd Q	4th Q		
01	ATA																										
02																											
03																											
04																											
05																											
06																											
07																											

S. No	Respective ATA Chapter	Year				Year				Year				Year				Year				Year				Aircraft Type	Remarks
		1st Q	2nd Q	3rd Q	4th Q	1st Q	2nd Q	3rd Q	4th Q	1st Q	2nd Q	3rd Q	4th Q	1st Q	2nd Q	3rd Q	4th Q	1st Q	2nd Q	3rd Q	4th Q	1st Q	2nd Q	3rd Q	4th Q		
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22																											
23																											

24																									
25																									

Evaluated and recommended by:

Work experience of ----------years is sufficient/in-sufficient for issuance of Aircraft Maintenance Licence in Category …… as per above evaluation.

Name of the Airworthiness Inspector : ……
Valid Credential Number : ……

Signature of the Inspector : ……

Date :……

2. Certification

I hereby certify that Mr/Ms……has sufficient/in-sufficient work experience as per SLCAIS 66, 66.A.30 for Issuance of Aircraft Maintenance Licence in Category ……

Certified by:

Name of the officer/AW Inspector : ……
Valid Credential Number : ……

Signature of the officer : ……

Date

3. Recommendation

(Mark all applicable parts of below table. If not applicable, mark as N/A)

Requirement as per IS 66			Evaluation & Recommendation			
IS 66 reference	Basic Experience Requirements	Category	Total experience gained (in years)	Sufficient	In-sufficient	Comments if any
66.A.30(a)1.	(i)03 years of practical maintenance experience on operating aircraft, if the applicant has no previous relevant technical training; or	A B1.2 B1.4 B3				
	ii) 02 years of practical maintenance experience on operating aircraft and completion of training considered relevant by the DGCA Sri Lanka as a skilled worker, in a technical trade; or	A B1.2 B1.4 B3				
	(iii) 01 year of practical maintenance experience on operating aircraft and completion of a basic training course approved in accordance with SLCAIS -147	A B1.2 B1.4 B3				
66.A.30(a)2.	(i) 05 years of practical maintenance experience on operating aircraft if the applicant has no previous relevant technical training; or	B2 B1.1 B1.3				
	(ii) 03 years of practical maintenance experience on operating aircraft and completion of training considered relevant by the DGCA Sri Lanka as a skilled worker, in a technical trade; or	B2 B1.1 B1.3				
	(iii) 02 years of practical maintenance experience on operating aircraft and completion of a basic training course approved in accordance with SLCAIS-147	B2 B1.1 B1.3				
66.A.30(a)3.	(i) 03 years of experience exercising category B1.1, B1.3 or B2 privileges on large aircraft or as support staff according to SLCAIS 145.A.35, or, a combination of both; or	C (for large aircraft)				
	ii) Five years of experience exercising category B1.2 or B1.4 privileges on large aircraft or as support staff according to SLCAIS 145.A.35, or a combination of both;					
66.A.30(a)4.	03 years of experience exercising category B1 or B.2 privileges on other than large aircraft or as support staff according to SLCAIS 145.A.35, or a combination of both.	C(for other than large a/c				
66.A.30(a)5.	03 years of experience working in a civil aircraft maintenance environment on a representative selection of tasks directly associated with aircraft maintenance including six months of observation of base maintenance tasks.	C through the academic route				
66.A.30(b)	minimum civil aircraft maintenance experience requirement appropriate to the	for an extension				

	additional category or subcategory of licence applied for as defined in Appendix IV to this SLCAIS-66.	to an AML				
Requirement as per IS 66			**Evaluation & Recommendation**			
IS 66 reference	**Basic Experience Requirements**	**Category**	**Total experience gained (in years)**	**Sufficient**	**In-sufficient**	**Comments if any**
66.A.30(d)	At least one year recent maintenance experience on aircraft	all category of initial AML				
66.A.30(d)	at least three months recent maintenance experience on aircraft of the category /subcategory for For subsequent category /subcategory additions to an existing aircraft maintenance licence	subsequent category/ sub category				
66.A.30(f)	Experience shall have been acquired within the ten years preceding the application for an aircraft maintenance licence or the addition of a category or subcategory to such a licence.	For all category /sub category of AML				
	aircraft maintenance experience gained outside a civil aircraft maintenance environment					
66.A.30(e)	six months civil aircraft maintenance experience is required to issue the Aircraft Maintenance Licence for SLAF applicant	For all category of AML				

APPENDIX II

Procedure for evaluation of work experience to issue AML

This appendix provides the required guidance for the CAA inspectors to review theoretical and practical training periods/hours of the technical training courses of training schools. The basis of allocating questions to Sub-modules on lecture hours and level of question also to be selected using guidance in the respective table.

BASIC COURSES FOR KNOWLEDGE TRAINING:

Basic course	Duration (hours)		Theory training ratio (In %)
	Hours	Days	
A1-Aeroplanes Turbine	800 (*1000)	200	30 to 35
A2- Aeroplanes Piston	650 (*1000)	200	30 to 35
A3- Helicopters Turbine	800 (*1000)	200	30 to 35
A4- Helicopters Piston	800 (*1000)	200	30 to 35
B1.1- Aeroplanes Turbine	2400	480	50 to 60
B1.2- Aeroplanes Piston	2000	480	50 to 60
B1.3- Helicopters Turbine	2400	480	50 to 60
B1.4- Helicopters Piston	2400	480	50 to 60
B2	2400	480	50 to 60

MODULE LEVEL DETAILS OF THE 'BASIC MODULES' KNOWLEDGE TRAINING COURSES

BASIC COURSE A1, A2, A3, A4

COURSE DURATION: 1000 HOURS

A. Theory: 340 Hours

B. Practical: 660 Hours

Theory Course Outline:

MODULE No.	MODULE TITLE		Duration							
			Hours				Days			
			A1	A2	A3	A4	A1	A2	A3	A4
1	Mathematics		15	15	15	15	03	03	03	03
2	Physics		25	25	25	25	05	03	03	03
3	Electrical Fundamentals		15	15	15	15	03	03	03	03
5	Digital Techniques / Electronic Instrument Systems		05	-	05	-	01	-	01	-
6	Materials and Hardware		70	70	70	70	14	14	14	14
7	Maintenance Practices		55	55	55	55	11	11	11	11
8	Basic Aerodynamics		10	10	10	10	02	02	02	02
9	Human Factors		05	05	05	05	01	01	01	01
10	Aviation Legislation		15	15	15	15	03	03	03	03
11A	Turbine	Aeroplane Aerodynamics, Structures and Systems	75	-	-		15	-	-	-
11B	Piston		-	75	-	-	-	15	-	-
12	Helicopter Aerodynamics, Structures And Systems		-	-	75	75	-	-	15	15
15	Gas Turbine Engine		40	-	40	-	08	-	08	-
16	Piston Engine		-	40	-	40	-	08	-	08
17	Propeller		10	10	-	-	02	02	-	-
SUB TOTAL (Theory)			**340**	**340**	**340**	**340**	**68**	**68**	**68**	**68**

COURSE SCHEDULES OF THE 'BASIC MODULES' KNOWLEDGE TRAINING COURSES

BASIC COURSE A1

MODULE 1 – MATHEMATICS (For A1, A2, A3, A4)

Sub Module No.	Topic	Level	No of Questions	Duration
1.1	Arithmetic	1	6	07
1.2	Algebra [(a) Evaluating simple algebraic expressions, …….]	1	4	04
1.3	Geometry [(b) Graphical representation, nature and …….]	2	6	08
-	Examination	-	-	02
TOTAL		**-**	**16**	**21 Periods**

MODULE 2 – PHYSICS (For A1, A2, A3, A4)

Sub Module No.	Topic	Level	No of Questions	Duration
2.1	Matter	1	4	04
2.2	Mechanics			22
2.2.1	Statics	1	5	06
2.2.2	Kinetics	1	5	06
2.2.3	Dynamics			05
	a. Mass; Force, Inertia, work……..	1	3	
	b. Momentum, conservation of momentum; ……..	1	2	
2.2.4	Fluid Dynamics			05
	a. Specific gravity and density.	2	3	
	b. Viscosity, fluid resistance, effects of streamlining; ……	1	2	
2.3	Thermodynamics [(a) Temperature: thermometers and …….]	2	6	07
-	Examination	-	-	02
TOTAL		**-**	**30**	**35 Periods**

MODULE 3 – ELECTRICAL FUNDAMENTALS (For A1, A2, A3, A4)

Sub Module No.	Topic	Level	No of Questions	Duration
3.1	Electron Theory	1	4	04
3.2	Static Electricity and Conduction	1	2	02
3.3	Electrical Terminology	1	3	02
3.4	Generation of Electricity	1	4	04
3.5	DC Sources of Electricity	1	3	03
3.13	AC Theory	1	4	04
-	Examination	-	-	02
TOTAL		**-**	**20**	**21 Periods**

MODULE 5 – DIGITAL TECHNIQUES / ELECTRONIC INSTRUMENT SYSTEMS (For A1 and A3)

Sub Module No.	Topic	Level	No of Questions	Duration
5.1	Electronic Instrument Systems	1	6	02
5.6	Basic Computer Structure [(a) Computer terminology, (including ….]	1	5	02
5.12	Electrostatic Sensitive Devices	1	5	02
-	Examination			01
TOTAL		**-**	**16**	**07 Periods**

MODULE 6 – MATERIALS AND HARDWARE (For A1, A2, A3, A4)

Sub Module No.	Topic	Level	No of Questions	Duration
6.1	Aircraft Materials – Ferrous [(a) Characteristics, properties …..]	1	3	05
6.2	Aircraft Materials – Non-Ferrous [(a) Characteristics, properties ..]	1	3	05

6.3	Aircraft Materials – Composite and Non-Metallic			04
	a. Characteristics, properties and identification ……	1	1	(2½)
	b. The detection of defects in ……	1	1	(1½)
6.3.2	Wooden Structure	1	1	
6.3.3	Fabric Covering	1	1	
6.4	Corrosion			14
	a. Chemical fundamentals; Formation ……..	1	4	(07)
	b. Types of corrosion and their ……	2	4	(07)
6.5	Fasteners			35
6.5.1	Screw threads	2	4	09
6.5.2	Bolts, studs and screws	2	5	14
6.5.3	Locking devices	2	4	08
6.5.4	Aircraft rivets	1	2	04
6.6	Pipes and Unions			18
	a. Identification of and types of rigid ……..	2	4	(08)
	b. Standard unions for aircraft hydraulic,	2	5	(10)
6.8	Bearings	1	1	02
6.9	Transmissions	1	2	03
6.10	Control Cables	1	3	06
6.11	Electrical Cables and Connectors	1	2	03
-	Examination	-	-	03
TOTAL		**-**	**50**	**98 Periods**

MODULE 7 – MAINTENANCE PRACTICES (For A1, A2, A3, A4)

Sub Module No.	Topic	Level	No of Questions	Duration
7.1	Safety Precautions – Aircraft and Workshop	1	9	10
7.2	Workshop Practices	1	9	10
7.3	Tools	3	9	10
7.5	Engineering Drawings, Diagrams and Standards	1	3	03
7.6	Fits and Clearances	1	4	04
7.7	Electrical Cables and Connectors	1	4	02
7.8	Riveting	1	1	01

7.9	Pipes and Hoses	1	1	01
7.10	Springs	1	1	01
7.11	Bearings	1	1	01
7.12	Transmissions	1	1	01
7.13	Control Cables	1	1	01
7.17	Aircraft Handling and Storage	2	9	13
7.18	Disassembly, Inspection, Repair and Assembly Techniques			10
	a. Types of defects and visual inspection techniques …	2	6	(06)
	d. Disassembly and re-assembly techniques.	2	4	(04)
7.19	Abnormal Events			04
	a. Inspections following lightning strikes ……..	2	2	(02)
	b. Inspections following abnormal events …….	2	2	(02)
7.20	Maintenance Procedures	1	3	03
-	Examination	-	-	02
TOTAL			**70**	**77 Periods**

MODULE 8 – BASIC AERODYNAMICS (For A1, A2, A3, A4)

Sub Module No.	Topic	Level	No of Questions	Duration
8.1	Physics of the Atmosphere	1	3	02
8.2	Aerodynamics	1	7	06
8.3	Theory of flight	1	6	04
8.4	Flight Stability and Dynamics	1	4	01
-	Examination	-	-	01
TOTAL		**-**	**20**	**14 Periods**

MODULE 9 – HUMAN FACTORS (For A1, A2, A3, A4)

Sub Module No.	Topic	Level	No of Questions	Duration

9.1	General	1	2	¼
9.2	Human Performance and Limitations	1	3	¼
9.3	Social Psychology	1	2	½
9.4	Factors Affecting Performance	2	3	02
9.5	Physical Environment	1	2	01
9.6	Tasks	1	2	½
9.7	Communication	2	2	01
9.8	Human Error	1	2	¼
9.9	Hazards in the Workplace	1	2	¼
-	Examination	-	-	01
TOTAL		**-**	**20**	**07 Periods**

MODULE 10 – AVIATION LEGISLATION (For A1, A2, A3. A4)

Sub Module No.	Topic	Level	No of Questions	Duration
10.1	Regulatory Framework	1	4	02
10.2	JAR-66 – Certifying Staff-Maintenance	2	4	02
10.3	JAR-145 – Approved Maintenance Organisations	2	4	03
10.4	JAR-OPS – Commercial Air Transportation	1	4	07
	a. General			(03)
	b. Subpart M			(04)
10.6	Part M	2	4	03
10.7	Applicable National and International Requirements for ….	1	10	03
-	Examination	-	-	01
TOTAL		**-**	**30**	**21 Periods**

MODULE 11 A – TURBINE AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS (For A1)

Sub Module No.	Topic	Level	No of Questions	Duration
11.1	Theory of Flight			14

11.1.1	Aeroplane Aerodynamics and Flight controls	1	10	(10)
11.1.2	High Speed Flight	1	4	(04)
11.2	Airframe Structures – General Concepts			22
	(a) Airworthiness requirements for ……	2	12	(17)
	(b) Construction methods of ……	1	5	(05)
11.3	Airframe Structures – Aeroplanes			07
11.3.1	Fuselage (ATA 52 / 53 / 56)	1	3	(02)
11.3.2	Wings (ATA 57)	1	2	(02)
11.3.3	Stabilizers (ATA 55)	1	1	(01)
11.3.4	Flight Control Surfaces (ATA 55 / 57)	1	1	(01)
11.3.5	Nacelles/Pylons (ATA 54)	1	1	(01)
11.4	Air Conditioning and Cabin Pressurization (ATA 21)			04
11.4.1	Air supply	1	1	(01)
11.4.2	Air Conditioning	1	1	(01)
11.4.3	Pressurization	1	1	(01)
11.4.4	Safety and Warning Devices	1	1	(01)
11.5	Instruments / Avionic Systems			05
11.5.1	Instrument Systems (ATA 31)	1	4	(03)
11.5.2	Avionic Systems	1	4	(02)
11.6	Electrical Power (ATA 24)	1	5	05
11.7	Equipment and Furnishings (ATA 25)			14
	a. Emergency equipment requirements ……..	2	5	(05)
	b. Cabin lay-out …….	1	6	(09)
11.8	Fire Protection (ATA 26)			02
	a. Fire and Smoke Detection …….	1	2	
	b. Portable Fire Extinguisher	1	1	
11.9	Flight Controls (ATA 27)	1	5	05
11.10	Fuel Systems (ATA 28)	1	4	04
11.11	Hydraulic Power (ATA 29)	1	4	04
11.12	Ice and Rain Protection (ATA 30)	1	2	02
11.13	Landing Gear (ATA 32)	2	3	03
11.14	Lights (ATA 33)	2	2	02
11.15	Oxygen (ATA 35)	1	2	02
11.16	Pneumatic / Vacuum (ATA 36)	1	3	03
11.17	Water / Waste (ATA 38)	2	2	02
11.18	On Board Maintenance Systems (ATA 45)	1	3	02
-	Examination	-	-	03

TOTAL	**-**	**100**	**105 Periods**

MODULE 11 B – PISTON AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS (For A2)

Sub Module No.	Topic	Level	No of Questions	Duration
11.1	Theory of Flight			10
11.1.1	Aeroplane Aerodynamics and Flight controls	1	10	(10)
11.1.2	High Speed Flight	-	N/A	N/A
11.2	Airframe Structures – General Concepts			22
	(a) Airworthiness requirements for ……	2	12	(17)
	(b) Construction methods of ……	1	5	(05)
11.3	Airframe Structures – Aeroplanes			07
11.3.1	Fuselage (ATA 52 / 53 / 56)	1	3	(02)
11.3.2	Wings (ATA 57)	1	2	(02)
11.3.3	Stabilizers (ATA 55)	1	1	(01)
11.3.4	Flight Control Surfaces (ATA 55 / 57)	1	1	(01)
11.3.5	Nacelles/Pylons (ATA 54)	1	1	(01)
11.4	Air Conditioning and Cabin Pressurization (ATA 21)	1	03	03
11.5	Instruments / Avionic Systems			05
11.5.1	Instrument Systems (ATA 31)	1	4	(03)
11.5.2	Avionic Systems	1	4	(02)
11.6	Electrical Power (ATA 24)	1	5	05
11.7	Equipment and Furnishings (ATA 25)			14
	a. Emergency equipment requirements ……..	2	5	(05)
	b. Cabin lay-out …….	1	6	(09)
11.8	Fire Protection (ATA 26)			03
	a. Fire and Smoke Detection …….	1	2	(02)
	b. Portable Fire Extinguisher	1	1	(01)
11.9	Flight Controls (ATA 27)	1	5	05
11.10	Fuel Systems (ATA 28)	1	4	04
11.11	Hydraulic Power (ATA 29)	1	4	04
11.12	Ice and Rain Protection (ATA 30)	1	2	02
11.13	Landing Gear (ATA 32)	2	3	03

11.14	Lights (ATA 33)	2	2	02
11.15	Oxygen (ATA 35)	1	2	02
11.16	Pneumatic / Vacuum (ATA 36)	1	3	03
11.17	Water / Waste (ATA 38)	2	2	02
-	Examination	-	-	03
TOTAL		**-**	**100**	**99 Periods**

MODULE 12 – HELICOPTER AERODYNAMICS, STRUCTURES AND SYSTEMS (For A3 and A4)

Sub Module No.	Topic	Level	No of Questions	Duration
12.1	Theory of Flight – Rotary Wing Aerodynamics	1	4	04
12.2	Flight Control Systems	2	5	05
12.3	Blade Tracking and Vibration Analysis	1	4	04
12.4	Transmissions	1	4	04
12.5	Airframe Structures			
	(a) Airworthiness requirements for structural ….	2	5	05
	(b) Construction methods of ……	1	4	04
12.6	Air Conditioning (ATA 21)			
12.6.1	Air supply	1	4	04
12.6.2	Air Conditioning	1	4	04
12.7	Instruments / Avionic Systems			
12.7.1	Instrument Systems (ATA 31)	1	4	04
12.7.2	Avionic Systems	1	4	04
12.8	Electrical Power (ATA 24)	1	4	04
12.9	Equipment and Furnishings (ATA 25)			
	a. Emergency equipment requirements ……..	2	5	05
	b. Emergency floatation systems ……	1	5	05
12.10	Fire Protection (ATA 26)	1	5	05
12.11	Fuel Systems (ATA 28)	1	5	05
12.12	Hydraulic Power (ATA 29)	1	5	05
12.13	Ice and Rain Protection (ATA 30)	1	5	05
12.14	Landing Gear (ATA 32)	2	5	05
12.15	Lights (ATA 33)	2	5	06
12.16	Pneumatic / Vacuum (ATA 36)	1	4	05

-	Examination	-	-	03
TOTAL		**-**	**90**	**95 Periods**

MODULE 15 – GAS TRUBINE ENGINE (For A1 and A3)

Sub Module No.	Topic	Level	No of Questions	Duration
15.1	Fundamentals	1	4	03
15.3	Inlet	2	8	07
15.4	Compressors	1	3	03
15.5	Combustion Section	1	3	02
15.6	Turbine Section	2	8	10
15.7	Exhaust	1	3	02
15.9	Lubricants and Fuels	1	3	02
15.10	Lubrication Systems	1	3	01
15.11	Fuel Systems	1	3	03
15.12	Air Systems	1	3	02
15.13	Starting and Ignition Systems	1	3	02
15.14	Engine Indication Systems	1	3	03
15.16	Turbo-prop Engines	1	3	03
15.17	Turbo-shaft Engines	1	2	02
15.18	Auxiliary Power Units (APUs)	1	2	02
15.19	Power Plant Installation	1	2	02
15.20	Fire Protection Systems	1	1	01
15.21	Engine Monitoring and Ground Operation	1	3	03
-	Examination	-	-	03
TOTAL		**-**	**60**	**56 Periods**

MODULE 16 – PISTION ENGINE (For A2 and A4)

Sub Module No.	Topic	Level	No of Questions	Duration
16.1	Fundamentals	1	3	03
16.2	Engine Performance	1	3	03
16.3	Engine Construction	1	3	03
16.4	Engine Fuel System			

16.4.1	Carburettors	1	3	03
16.4.2	Fuel Injection System	1	4	04
16.4.3	Electronic Engine Control	1	4	04
16.5	Starting and Ignition System	1	4	04
16.6	Induction, Exhaust and cooling systems	1	4	04
16.7	Supercharging / Turbo charging	1	4	04
16.8	Lubricants and Fuels	1	4	04
16.9	Lubrication Systems	1	4	04
16.10	Engine Induction Systems	1	4	04
16.11	Power plant Installation	1	4	04
16.12	Engine Monitoring and Ground Operation	1	4	04
16.13	Engine Storage and Preservation	-	-	
-	Examination	-	-	03
TOTAL		**-**	**52**	**55 Periods**

MODULE 17 – PROPELLER (For A1 and A2)

Sub Module No.	Topic	Level	No of Questions	Duration
17.1	Fundamentals	1	5	04
17.2	Propeller Construction	1	4	03
17.3	Propeller Pitch Control	1	3	02
17.5	Propeller Ice Protection	1	2	01
17.6	Propeller Maintenance	1	4	03
17.7	Propeller Storage and Preservation	1	2	02
-	Examination	-	-	01
TOTAL			**20**	**16 Periods**

BASIC COURSE B1.1

COURSE DURATION: 2400 HOURS

A. Theory: 1200 Hours

B. Practical: 1200 Hours

COURSE OUTLINE:

A. Theory

MODULE No.	MODULE TITLE		Duration							
			Hours				Days			
			B1.1	B1.2	B1.3	B1.4	B1.1	B1.2	B1.3	B1.4
1	Mathematics		50	50	50	50	10	10	10	10
2	Physics		75	75	75	75	15	15	15	15
3	Electrical Fundamentals		100	100	100	100	20	20	20	20
4	Electronic Fundamentals		35	35	35	35	07	07	07	07
5	Digital Techniques / Electronic Instrument Systems		75	75	75	75	15	15	15	15
6	Materials and Hardware		125	125	125	125	25	25	25	25
7	Maintenance Practices		175	175	175	175	35	35	35	35
8	Basic Aerodynamics		50	50	50	50	10	10	10	10
9	Human Factors		15	15	15	15	03	03	03	03
10	Aviation Legislation		25	25	25	25	05	05	05	05
11A	Turbine	Aeroplane Aerodynamics, Structures and Systems	300	-	-	-	60	-	-	-
11B	Piston		-	300	-	-	-	60	-	-
12	Helicopter Aerodynamics, Structures and Systems		-	-	300	300	-	-	60	60
15	Gas Turbine Engine		150	-	150	-	30	-	30	-
16	Piston Engine		-	150	-	150	-	30	-	30
17	Propeller		25	25	-	-	05	05	-	-
SUB TOTAL (Theory)			**1200**	**1200**	**1200**	**1200**	**240**	**240**	**240**	**240**

MODULE 1 – MATHEMATICS (For B1.1, B1.2, B1.3, B1.4)

Sub Module No.	Topic	Level	No of Questions	Duration
1.1	Arithmetic	2	9	21
1.2	Algebra			
	a. Evaluating simple algebraic expressions…….	2	5	12
	b. Linear equations and ……..	1	6	13
1.3	Geometry			
	a. Simple geometrical constructions	1	2	04
	b. Graphical representation ……..	2	4	08
	c. Simple trigonometry ……	2	4	09
-	Examination	-	-	03
TOTAL		**-**	**30**	**70 Periods**

MODULE 2 – PHYSICS (For B1.1, B1.2, B1.3, B1.4)

Sub Module No.	Topic	Level	No of Questions	Duration
2.1	Matter	1	3	04
2.2	Mechanics			49
2.2.1	Statics	2	5	10
2.2.2	Kinetics	2	7	14
2.2.3	Dynamics			13
	a. Mass, Force, inertia ……	2	3	07
	b. Momentum, conversation of momentum …….	2	3	06
2.2.4	Fluid Dynamics			12
	a. Specific gravity and density	2	2	03
	b. Viscosity, fluid resistance, effects……..	2	4	09
2.3	Thermodynamics			28
	a. Temperature: thermometers and temperature scales: ……..	2	3	07
	b. Heat Capacity, specific heat; ……..	2	10	21
2.4	Optics (Light)	2	5	10
2.5	Wave Motion and Sound	2	5	11
-	Examination	-	-	03

TOTAL	**-**	**50**	**105 Periods**

MODULE 3 – ELECTRICAL FUNDAMENTALS (For B1.1, B1.2, B1.3, B1.4)

Sub Module No.	Topic	Level	No of Questions	Duration
3.1	Electron Theory	1	1	04
3.2	Static Electricity and Conduction	2	1	03
3.3	Electrical Terminology	2	3	07
3.4	Generation of Electricity	1	1	04
3.5	DC Sources of Electricity	2	3	10
3.6	DC Circuits	2	3	07
3.7	Resistance / Resistor			09
	a. Resistance and affecting factors …….	2	2	06
	b. Positive and negative temperature…….	1	1	03
3.8	Power	2	3	07
3.9	Capacitance / Capacitor	2	3	10
3.10	Magnetism			10
	a. Theory of Magnetism …….	2	2	05
	b. Magneto motive force ……..	2	2	05
3.11	Inductance / Inductor	2	3	10
3.12	DC Motor / Generator Theory	2	4	10
3.13	AC Theory	2	4	10
3.14	Resistive (R), Capacitive (C), and Inductive (L) Circuits	2	3	10
3.15	Transformers	2	3	07
3.16	Filters	1	1	02
3.17	AC Generators	2	4	10
3.18	AC Motors	2	3	07
-	Examination	-	-	03
TOTAL		**-**	**50**	**140 Periods**

MODULE 4 – ELECTRONIC FUNDAMENTALS (For B1.1, B1.2, B1.3, B1.4)

Sub Module No.	Topic	Level	No of Questions	Duration
4.1	Semiconductors			32
4.1.1	Diodes [(a) Diode symbols …….]	2	6	13
4.1.2	Transistors [(a) Transistor symbols …….]	1	5	12
4.1.3	Integrated Circuits [(a) Description and operation of …]	1	3	07
4.2	Printed Circuit Boards	1	2	04
4.3	Servomechanisms [(a) Understanding of the following terms ……]	1	4	10
-	Examination	-	-	03
TOTAL		**-**	**20**	**49 Periods**

MODULE 5 – DIGITAL TECHNIQUES ELECTRONIC INSTRUMENT SYSTEMS (For B1.1, B1.3)

Sub Module No.	Topic	Level	No of Questions	Duration
5.1	Electronic Instrument Systems	2	2	04
5.2	Numbering System	1	3	07
5.3	Data Conversion	1	3	07
5.4	Data Buses	2	3	13
5.5	Logic Circuits [(a) Identification of common logic …..]	2	3	08
5.6	Basic Computer Structure [(a) Computer terminology (including . ..]	2	5	13
5.10	Fibre Optics	1	3	07
5.11	Electronic Displays	2	5	12
5.12	Electrostatic Sensitive Devices	2	3	05
5.13	Software Management Control	2	2	03
5.14	Electromagnetic Environment	2	3	04
5.15	Typical Electronic / Digital Aircraft systems	2	5	19
-	Examination	-	-	03
TOTAL		**-**	**40**	**105 Periods**

MODULE 5 – DIGITAL TECHNIQUES ELECTRONIC INSTRUMENT SYSTEMS (For B1.2, B1.4)

Sub Module No.	Topic	Level	No of Questions	Duration
5.1	Electronic Instrument Systems	2	2	04
5.2	Numbering System	-	-	-
5.3	Data Conversion	-	-	-
5.4	Data Buses	-	-	-
5.5	Logic Circuits [(a) Identification of common logic …..]	-	-	-
5.6	Basic Computer Structure [(a) Computer terminology (including ...]	-	-	-
5.10	Fibre Optics	1	4	10
5.11	Electronic Displays	-	-	-
5.12	Electrostatic Sensitive Devices	2	4	08
5.13	Software Management Control	1	3	06
5.14	Electromagnetic Environment	2	2	07
5.15	Typical Electronic / Digital Aircraft systems	2	5	19
-	Examination	-	-	02
TOTAL		**-**	**20**	**56 Periods**

MODULE 6 – MATERIALS AND HARDWARE (For B1.1, B1.2, B1.3, B1.4)

Sub Module No.	Topic	Level	No of Questions	Duration
6.1	Aircraft Materials – Ferrous			21
	a. Characteristics, properties and ……..	2	4	14
	b. Testing of ferrous material ……	1	2	07
6.2	Aircraft Materials – Non-Ferrous			14
	a. Characteristics, properties and ……..	2	5	09
	b. Testing of non-ferrous material ……	1	2	05
6.3	Aircraft Materials – Composite and Non-Metallic			32
6.3.1	Composite & Non-Metallic other than wood and fabric			20

	a. Characteristics, properties and …….	2	4	12
	b. The detection of defects …….	2	3	08
6.3.2	Wooden Structures	2	2	08
6.3.3	Fabric Covering	2	2	04
6.4	Corrosion			28
	a. Chemical fundamentals ……..	1	3	12
	b. Types of corrosion and ……	3	4	16
6.5	Fasteners			35
6.5.1	Screw threads	2	4	07
6.5.2	Bolts, studs and screws	2	6	14
6.5.3	Locking devices	2	3	07
6.5.4	Aircraft rivets	2	3	07
6.6	Pipes and Unions			14
	a. Identification of, and …….	2	3	06
	b. Standard unions for aircraft …….	2	4	08
6.7	Springs	2	2	04
6.8	Bearings	2	3	05
6.9	Transmissions	2	3	05
6.10	Control Cables	2	3	07
6.11	Electrical Cables and Connectors	2	5	07
-	Examination	-	-	03
TOTAL		**-**	**70**	**175 Periods**

MODULE 7 – MAINTENANCE PRACTICES (For B1.1, B1.2, B1.3, B1.4)

Sub Module No.	Topic	Level	No of Questions	Duration
7.1	Safety Precautions – Aircraft and Workshop	1	4	11
7.2	Workshop Practices	3	3	10
7.3	Tools	3	4	21
7.4	Avionic General Test Equipment	2	2	18
7.5	Engineering Drawings, Diagrams and Standards	2	7	42
7.6	Fits and Clearances	2	4	07
7.7	Electrical Cables and Connectors	2	4	10

7.8	Riveting	2	2	07
7.9	Pipes and Hoses	2	2	04
7.10	Springs	2	1	02
7.11	Bearings	2	2	03
7.12	Transmissions	2	2	03
7.13	Control Cables	2	2	07
7.14	Material handling			14
7.14.1	Sheet Metal	2	3	07
7.14.2	Composite an non-metallic	2	3	07
7.15	Welding, Brazing, Soldering and Bonding			07
	a. Soldering methods …….	2	2	03
	b. Welding and brazing methods ……..	2	2	04
7.16	Aircraft Weight and Balance			11
	a. Centre of Gravity / Balance …….	2	2	05
	b. Preparation of aircraft …….	2	2	06
7.17	Aircraft Handling and Storage	2	4	11
7.18	Disassembly, Inspection, Repair and Assembly Techniques			35
	a. Types of defects and ……	3	3	10
	b. General repair methods …….	2	2	09
	c. Non destructive inspection ……..	2	2	08
	d. Disassembly and re-assembly ……	2	3	04
	e. Trouble shooting techniques.	2	3	04
7.19	Abnormal Events			04
	a. Inspections following lightning…….	2	2	02
	b. Inspections following abnormal …….	2	2	02
7.20	Maintenance Procedures	2	6	14
-	Examination	-	-	04
TOTAL		**-**	**80**	**245 Periods**

Note; This Module contains two essay question to answer in 40 minutes.

MODULE 8 – BASIC AERODYNAMICS (For B1.1, B1.2, B1.3, B1.4)

Sub Module No.	Topic	Level	No of Questions	Duration

8.1	Physics of the Atmosphere	2	2	07
8.2	Aerodynamics	2	10	32
8.3	Theory of flight	2	6	21
8.4	Flight Stability and Dynamics	2	2	07
-	Examination	-	-	03
TOTAL		**-**	**20**	**70 Periods**

MODULE 9 – HUMAN FACTORS (For B1.1, B1.2, B1.3, B1.4)

Sub Module No.	Topic	Level	No of Questions	Duration
9.1	General	2	2	02
9.2	Human Performance and Limitations	2	3	03
9.3	Social Psychology	1	2	02
9.4	Factors Affecting Performance	2	3	02
9.5	Physical Environment	1	2	02
9.6	Tasks	1	2	02
9.7	Communication	2	2	02
9.8	Human Error	2	2	02
9.9	Hazards in the Workplace	2	2	02
-	Examination	-	-	02
TOTAL		**-**	**20**	**21 Periods**

Note; This Module contains one essay question to answer in 20 minutes.

MODULE 10 – AVIATION LEGISLATION (For B1.1, B1.2, B1.3, B1.4)

Sub Module No.	Topic	Level	No of Questions	Duration
10.1	Regulatory Framework	1	3	02
10.2	Part -66 – Certifying Staff- Maintenance	2	3	02
10.3	Part -145 – Approved Maintenance Organizations	2	4	03
10.4	JAR-OPS – Commercial Air Transportation	1	3	05
	a. General			02
	b. Subpart M			03
10.5	Aircraft Certification			07
	a. General	1	4	03

	b. Documents	2	5	04
10.6	Part M	2	4	03
10.7	Applicable National and International Requirements for ….			11
	a. Maintenance Programmes, Maintenance check ……	2	10	08
	b. Continuing airworthiness; Test flights; ETOPS,	1	4	03
-	Examination	-	-	02
TOTAL		**-**		**35 Periods**

Note; This Module contains one essay question to answer in 20 minutes.

MODULE 11 A – TURBINE AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS (For B1.1)

Sub Module No.	Topic	Level	No of Questions	Duration
11.1	Theory of Flight			38
11.1.1	Aeroplane Aerodynamics and Flight controls	2	8	(26)
11.1.2	High Speed Flight	2	4	(12)
11.2	Airframe Structures – General Concepts			42
	a. Airworthiness requirements for ……	2	6	(17)
	b. Construction methods of ……	2	7	(25)
11.3	Airframe Structures – Aeroplanes			42
11.3.1	Fuselage (ATA 52 / 53 / 56)	2	3	(10)
11.3.2	Wings (ATA 57)	2	3	(08)
11.3.3	Stabilizers (ATA 55)	2	2	(08)
11.3.4	Flight Control Surfaces (ATA 55 / 57)	2	2	(08)
11.3.5	Nacelles/Pylons (ATA 54)	2	2	(08)
11.4	Air Conditioning and Cabin Pressurization (ATA 21)			21
11.4.1	Air supply	2	1	(03)
11.4.2	Air Conditioning	3	3	(07)
11.4.3	Pressurization	3	3	(07)
11.4.4	Safety and Warning Devices	3	1	(04)
11.5	Instruments / Avionic Systems	-	-	84
11.5.1	Instrument Systems (ATA 31)	2	10	(42)

11.5.2	Avionic Systems	1	9	(42)
11.6	Electrical Power (ATA 24)	3	9	28
11.7	Equipment and Furnishings (ATA 25)			14
	a. Emergency equipment requirements ……..	2	2	(05)
	b. Cabin lay-out …….	1	3	(09)
11.8	Fire Protection (ATA 26)			07
	a. Fire and smoke detection……	3	2	
	b. Portable fire extinguisher	1	1	
11.9	Flight Controls (ATA 27)	3	7	21
11.10	Fuel Systems (ATA 28)	3	7	21
11.11	Hydraulic Power (ATA 29)	3	7	21
11.12	Ice and Rain Protection (ATA 30)	3	3	07
11.13	Landing Gear (ATA 32)	3	8	35
11.14	Lights (ATA 33)	3	3	07
11.15	Oxygen (ATA 35)	3	3	07
11.16	Pneumatic / Vacuum (ATA 36)	3	3	07
11.17	Water / Waste (ATA 38)	3	3	07
11.18	On Board Maintenance Systems (ATA 45)	2	5	07
-	Examination	-	-	4
TOTAL		**-**	**130**	**420 Periods**

MODULE 11 B – PISTON AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS (For B1.2)

Sub Module No.	Topic	Level	No of Questions	Duration
11.1	Theory of Flight			
11.1.1	Aeroplane Aerodynamics and Flight controls	2	4	32
11.2	Airframe Structures – General Concepts			
	(a) Airworthiness requirements for ……	2	4	17
	(b) Construction methods of ……	2	4	30
11.3	Airframe Structures – Aeroplanes			
11.3.1	Fuselage (ATA 52 / 53 / 56)	2	4	16

11.3.2	Wings (ATA 57)	2	4	12
11.3.3	Stabilizers (ATA 55)	2	4	12
11.3.4	Flight Control Surfaces (ATA 55 / 57)	2	4	12
11.3.5	Nacelles/Pylons (ATA 54)	2	4	12
11.4	Air Conditioning and Cabin Pressurization (ATA 21)	3	4	12
11.5	Instruments / Avionic Systems			
11.5.1	Instrument Systems (ATA 31)	2	4	42
11.5.2	Avionic Systems	1	4	42
11.6	Electrical Power (ATA 24)	3	4	20
11.7	Equipment and Furnishings (ATA 25)			
	a. Emergency equipment requirements ……..	2	4	09
	b. Cabin lay-out …….	1	4	09
11.8	Fire Protection (ATA 26)			
	a. Fire and smoke detection ……..	3	4	08
	b. Portable fire extinguisher …….	3	4	10
11.9	Flight Controls (ATA 27)	3	4	22
11.10	Fuel Systems (ATA 28)	3	4	12
11.11	Hydraulic Power (ATA 29)	3	4	12
11.12	Ice and Rain Protection (ATA 30)	3	4	08
11.13	Landing Gear (ATA 32)	3	4	25
11.14	Lights (ATA 33)	2	4	12
11.15	Oxygen (ATA 35)	3	4	08
11.16	Pneumatic / Vacuum (ATA 36)	3	4	15
11.17	Water / Waste (ATA 38)	3	4	08
-	Examination	-	-	04
TOTAL		**-**	**100**	**420 Periods**

MODULE 12 – HELICOPTER AERODYNAMICS, STRUCTURES AND SYSTEMS (For B1.3, B1.4)

Sub Module No.	Topic	Level	No of Questions	Duration
12.1	Theory of Flight – Rotary Wing Aerodynamics	2	5	40
12.2	Flight Control Systems	3	5	30

12.3	Blade Tracking and Vibration Analysis	3	5	25
12.4	Transmissions	2	5	25
12.5	Airframe Structures			
	(a) Airworthiness requirements for structural ….	2	5	35
	(b) Construction methods of ……	2	5	35
12.6	Air Conditioning (ATA 21)			
12.6.1	Air supply	2	6	18
12.6.2	Air Conditioning	3	6	18
12.7	Instruments / Avionic Systems			
12.7.1	Instrument Systems (ATA 31)	2	6	24
12.7.2	Avionic Systems	1	6	24
12.8	Electrical Power (ATA 24)	3	6	18
12.9	Equipment and Furnishings (ATA 25)			
	a. Emergency equipment requirements ……..	2	6	18
	b. Emergency floatation systems …….	1	6	12
12.10	Fire Protection (ATA 26)	3	6	12
12.11	Fuel Systems (ATA 28)	3	6	12
12.12	Hydraulic Power (ATA 29)	3	6	18
12.13	Ice and Rain Protection (ATA 30)	3	6	12
12.14	Landing Gear (ATA 32)	3	6	12
12.15	Lights (ATA 33)	3	6	16
12.16	Pneumatic / Vacuum (ATA 36)	3	6	12
-	Examination	-	-	04
TOTAL	**-**	**-**	**114**	**420 Periods**

MODULE 15 – GAS TURBINE ENGINE (For B1.1, B1.3)

Sub Module No.	Topic	Level	No of Questions	Duration
15.1	Fundamentals	2	6	14
15.2	Engine Performance	2	6	14
15.3	Inlet	2	3	07
15.4	Compressors	2	6	14
15.5	Combustion Section	2	3	07
15.6	Turbine Section	2	4	10
15.7	Exhaust	2	5	11
15.8	Bearings and Seals	2	3	07

15.9	Lubricants and Fuels	2	5	10
15.10	Lubrication Systems	2	3	07
15.11	Fuel Systems	2	6	14
15.12	Air Systems	2	3	07
15.13	Starting and Ignition Systems	2	3	07
15.14	Engine Indication Systems	2	6	14
15.15	Power Augmentation Systems	1	2	03
15.16	Turbo-prop Engines	2	3	07
15.17	Turbo-shaft Engines	2	3	07
15.18	Auxiliary Power Units (APUs)	2	3	07
15.19	Power Plant Installation	2	5	12
15.20	Fire Protection Systems	2	3	07
15.21	Engine Monitoring and Ground Operation	3	6	14
15.22	Engine Storage and Preservation	2	3	07
-	Examination	-	-	03
TOTAL		**-**	**90**	**210 Periods**

MODULE 16 – PISTON ENGINE (For B1.2, B1.4)

Sub Module No.	Topic	Level	No of Questions	Duration
16.1	Fundamentals	2	4	16
16.2	Engine Performance	2	4	16
16.3	Engine Construction	2	4	16
16.4	Engine Fuel System			
16.4.1	Carburettors	2	5	15
16.4.2	Fuel Injection System	2	5	15
16.4.3	Electronic Engine Control	2	5	15
16.5	Starting and Ignition System	2	5	20
16.6	Induction, Exhaust and cooling systems	2	5	20
16.7	Supercharging / Turbo charging	2	5	10
16.8	Lubricants and Fuels	2	5	15
16.9	Lubrication Systems	2	5	10
16.10	Engine Induction Systems	2	5	10
16.11	Power plant Installation	2	5	10
16.12	Engine Monitoring and Ground Operation	3	5	10
16.13	Engine Storage and Preservation	2	5	10
-	Examination	-	-	02

TOTAL	**-**	**72**	**210 Periods**

MODULE 17 – PROPELLER (For B1.1, B1.2)

Sub Module No.	Topic	Level	No of Questions	Duration
17.1	Fundamentals	2	6	09
17.2	Propeller Construction	2	6	07
17.3	Propeller Pitch Control	2	5	05
17.4	Propeller Synchronizing	2	2	02
17.5	Propeller Ice Protection	2	2	02
17.6	Propeller Maintenance	3	5	07
17.7	Propeller Storage and Preservation	2	4	
-	Examination	-	-	03
TOTAL		**-**	**30**	**35 Periods**

BASIC COURSE B2

COURSE DURATION: 2400 HOURS

A. Theory: 1200 Hours

B. Practical: 1200 Hours

COURSE OUTLINE:

A. Theory

MODULE No.	MODULE TITLE	Duration	
		Hours	Days
1	Mathematics	50	10
2	Physics	75	15
3	Electrical Fundamentals	100	20
4	Electronic Fundamentals	85	17

5	Digital Techniques / Electronic Instrument Systems	115	23
6	Materials and Hardware	100	20
7	Maintenance Practices	115	25
8	Basic Aerodynamics	50	10
9	Human Factors	15	03
10	Aviation Legislation	25	05
13	Aircraft Aerodynamics, Structures and Systems	425	85
14	Propulsion	35	07
SUB TOTAL (Theory)		**1200**	**240**

MODULE 1 – MATHEMATICS

Sub Module No.	Topic	Level	No of Questions	Duration
1.1	Arithmetic	2	9	21
1.2	Algebra			25
	a. Evaluating simple algebraic expressions ……	2	5	12
	b. Linear equations and ……..	1	6	13
1.3	Geometry			21
	a. Simple geometrical constructions	1	2	04
	b. Graphical representation ……..	2	4	08
	c. Simple trigonometry ……	2	4	09
-	Examination	-	-	03
TOTAL			**30**	**70 Periods**

MODULE 2 – PHYSICS

Sub Module No.	Topic	Level	No of Questions	Duration
2.1	Matter	1	3	04
2.2	Mechanics			49
2.2.1	Statics	1	4	10
2.2.2	Kinetics	1	4	14

2.2.3	Dynamics			13
	a. Mass, Force, inertia ……	1	2	07
	b. Momentum, conversation of momentum …….	2	4	06
2.2.4	Fluid Dynamics			12
	a. Specific gravity and density	2	2	03
	b. Viscosity, fluid resistance, effects ……	1	2	09
2.3	Thermodynamics			28
	a. Temperature: thermometers and temperature scales ……..	2	4	07
	b. Heat Capacity, specific heat ……..	2	12	21
2.4	Optics (Light)	2	7	10
2.5	Wave Motion and Sound	2	6	11
-	Examination	-	-	03
TOTAL		**-**	**50**	**105 Periods**

MODULE 3 – ELECTRICAL FUNDAMENTALS

Sub Module No.	Topic	Level	No of Questions	Duration
3.1	Electron Theory	1	1	04
3.2	Static Electricity and Conduction	2	1	03
3.3	Electrical Terminology	2	3	07
3.4	Generation of Electricity	1	1	04
3.5	DC Sources of Electricity	2	3	10
3.6	DC Circuits	2	3	07
3.7	Resistance / Resistor			09
	a. Resistance and affecting factors …….	2	2	06
	b. Positive and negative temperature ……..	1	1	03
3.8	Power	2	3	07
3.9	Capacitance / Capacitor	2	3	10
3.10	Magnetism			10
	a. Theory of Magnetism …….	2	2	05
	b. Magnetomotive force ……..	2	2	05
3.11	Inductance / Inductor	2	3	10
3.12	DC Motor / Generator Theory	2	4	10
3.13	AC Theory	2	4	10

3.14	Resistive (R), Capacitive (C), and Inductive (L) Circuits	2	3	10
3.15	Transformers	2	3	07
3.16	Filters	1	1	02
3.17	AC Generators	2	4	10
3.18	AC Motors	2	3	07
-	Examination	-	-	03
TOTAL		**-**	**50**	**140 Periods**

MODULE 4 – ELECRIC FUNDAMENTALS

Sub Module No.	Topic	Level	No of Questions	Duration
4.1	Semiconductors			81
4.1.1	Diodes			25
	(a) Diode symbols, Diodes ……..	2	4	13
	(b) Material, electron configuration ……	2	7	11
4.1.2	Transistors			35
	(a) Transistor symbols …….	2	4	14
	(b) Construction and operation of …….	2	6	21
4.1.3	Integrated Circuits [(b) Description and operation of ……]	2	10	21
4.2	Printed Circuit Boards	2	4	14
4.3	Servomechanisms [(b) Understanding of the following term……]	2	5	21
-	Examination	-	-	03
TOTAL		**-**	**40**	**119 Periods**

MODULE 5 – DIGITAL TECHNIQUES / ELECTRIC INSTRUMENT SYSTEMS

Sub Module No.	Topic	Level	No of Questions	Duration
5.1	Electronic Instrument Systems	3	3	07
5.2	Numbering System	2	6	14
5.3	Data Conversion	2	6	14

5.4	Databases	2	5	13
5.5	Logic Circuits			14
	a. Identification of common logic gate …….	2	3	08
	b. Interpretation of logic diagrams.	2	1	06
5.6	Basic Computer Structure [(b) Computer related terminology ….]	2	8	17
5.7	Microprocessors	2	6	07
5.8	Integrated Circuits	2	3	07
5.9	Multiplexing	2	3	07
5.10	Fiber Optics	2	6	14
5.11	Electronic Displays	2	6	12
5.12	Electrostatic Sensitive Devices	2	3	05
5.13	Software Management Control	2	2	04
5.14	Electromagnetic Environment	2	3	04
5.15	Typical Electronic / Digital Aircraft Systems	2	6	19
-	Examination	-	-	03
TOTAL		**-**	**70**	**161 Periods**

MODULE 6 – MATERIALS AND HARDWARE

Sub Module No.	Topic	Level	No of Questions	Duration
6.1	Aircraft Materials – Ferrous			18
	a. Characteristics, properties and ……	1	2	11
	b. Testing of ferrous material …….	1	3	07
6.2	Aircraft Materials – Non-Ferrous			12
	a. Characteristics, properties and ……	1	2	07
	b. Testing of non-ferrous material …….	1	2	05
6.3	Aircraft Materials – Composite and Non-Metallic			12
	6.3.1 (a) Characteristics, properties and identification of……	2	5	
6.4	Corrosion			24
	a. Chemical Fundamentals ……..	1	3	12
	b. Types of corrosion and …….	2	3	12
6.5	Fasteners			32

6.5.1	Screw threads	2	4	07
6.5.2	Bolts, studs and screws	2	6	14
6.5.3	Locking devices	2	4	07
6.5.4	Aircraft rivets	1	2	04
6.6	Pipes and Unions			11
	a. Identification of and ……..	2	4	06
	b. Standard unions for aircraft ……..	1	1	05
6.7	Springs	1	1	03
6.8	Bearings	2	5	05
6.9	Transmissions	2	5	05
6.10	Control Cables	1	3	04
6.11	Electrical Cables and Connectors	2	5	07
-	Review / Self Study	-	-	04
-	Examination	-	-	03
TOTAL			**60**	**140 Periods**

MODULE 7 – MAINTENANCE PRACTICES

Sub Module No.	Topic	Level	No of Questions	Duration
7.1	Safety Precautions – Aircraft and Workshop	1	4	11
7.2	Workshop Practices	3	4	10
7.3	Tools	3	4	21
7.4	Avionic General Test Equipment	3	3	21
7.5	Engineering Drawings, Diagrams and Standards	2	7	42
7.6	Fits and Clearances	1	3	04
7.7	Electrical Cables and Connectors	2	4	10
7.15	Welding, Brazing, Soldering and Bonding [(a) Soldering methods ..]	2	2	03
7.16	Aircraft Weight and Balance [(a)Centre of Gravity / Balance …..]	2	3	05
7.17	Aircraft Handling and Storage	2	5	11
7.18	Disassembly, Inspection, Repair and Assembly Techniques			18
	a. Types of defects and ……	2	3	05
	c. Non Destructive Inspection Techniques	1	3	05

	d. Disassembly and re-assembly …….	2	3	04
	e. Trouble shooting techniques.	2	3	04
7.19	Abnormal Events [(a) Inspection following lightning ….]	2	2	02
7.20	Maintenance Procedures	2	7	14
-	Examination	-	-	03
TOTAL		**-**	**60**	**175 Periods**

MODULE 8 – BASIC AERODYNAMICS

Sub Module No.	Topic	Level	No of Questions	Duration
8.1	Physics of the Atmosphere	2	2	07
8.2	Aerodynamics	2	10	32
8.3	Theory of flight	2	6	21
8.4	Flight Stability and Dynamics	2	2	07
-	Examination	-	-	03
TOTAL		**-**	**20**	**70 Periods**

MODULE 9 – HUMAN FACTORS

Sub Module No.	Topic	Level	No of Questions	Duration
9.1	General	2	2	02
9.2	Human Performance and Limitations	2	3	03
9.3	Social Psychology	1	2	02
9.4	Factors Affecting Performance	2	3	02
9.5	Physical Environment	1	2	02
9.6	Tasks	1	2	02
9.7	Communication	2	2	02
9.8	Human Error	2	2	02
9.9	Hazards in the Workplace	2	2	02
-	Examination	-	-	02
TOTAL		**-**	**20**	**21 Periods**

MODULE 10 – AVIATION LEGISLATION

Sub Module No.	Topic	Level	No of Questions	Duration
10.1	Regulatory Framework	1	3	02
10.2	Part 66 – Certifying Staff-Maintenance	2	3	02
10.3	Part 145 – Approved Maintenance Organizations	2	4	03
10.4	JAR-OPS – Commercial Air Transportation	1	3	05
10.5	Aircraft Certification			07
	a. General	1	4	03
	b. Documents	2	5	04
10.6	Part M	2	4	03
10.7	Applicable National and International Requirements for ….			11
	a. Maintenance Programmes, Maintenance check…….	2	10	08
	b. Continuing airworthiness; Test flights; ETOPS…	1	4	03
-	Examination	-	-	02
TOTAL		-	**40**	**35 Periods**

MODULE 13 – AEROPLANE AERODYNAMICS, STRUCTURE AND SYSTEMS

Sub Module No.	Topic	Level	No of Questions	Duration
13.1	Theory of Flight			39
	a. Aeroplane Aerodynamics and Flight Controls: …….	1	5	23
	b. High Speed Flight: …….	1	3	12
	c. Rotary Wing Aerodynamics: …….	1	1	04
13.2	Structures – General Concepts			14
	a. Fundamentals of structural …….	1	2	08
	b. Zonal and station identification……	2	1	06
13.3	Auto flight (ATA 22)	3	9	41
13.4	Communication /Navigation (ATA 23 / 34)	3	60	280
13.5	Electrical Power (ATA 24)	3	6	28
13.6	Equipment and Furnishings (ATA 25)	3	3	14
13.7	Flight Controls (ATA 27)			21

	a. Primary controls: aileron ……..	1	3	14
	b. System operation: electrical …….	2	2	07
13.8	Instrument Systems (ATA 31)	2	31	140
13.9	Lights (ATA 33)	3	2	07
13.10	On Board Maintenance Systems (ATA 45)	2	2	07
-	Examination	-	-	4
TOTAL		**-**	**130**	**595 Periods**

MODULE 14 – PROPULSION

Sub Module No.	Topic	Level	No of Questions	Duration
14.1	Turbine Engines			32
	a. Constructional arrangement and ……..	1	9	14
	b. Electronic Engine control …….	2	9	18
14.2	Engine Indicating Systems	2	7	14
-	Examination	-	-	03
TOTAL		**-**	**25**	**49 Periods**

Appendix III

Aircraft Maintenance Engineer's Logbook

CONTENTS

Section 3 **3.1 Type Training and Supplementary Training**

3.2 Maintenance Experience

3.3 Aircraft Type Practical Experience - List of Tasks

Section 1.1 Instructions for Use

General Information

This Logbook is the preferred means of demonstrating compliance with the training and experience requirements for the issue and endorsement of an Aircraft Maintenance Licence. Maintaining this Logbook does not eliminate the need to comply with the relevant requirements, which at all times take precedence; however, the evidence herein should allow an assessment of compliance with the requirements to be made more readily.

The Logbook has been produced in loose-leaf to allow for additional pages to be used to extend the Logbook's life. The additional pages could be generated on A4 size pages without damaging the format addressed in this document and follow on from the previous Logbook/Work sheet.

Note; The Logbook means a pack of work sheets incorporated in an orderly manner to prepare an experience Workbook.

Instruction for Completion of the Logbook/Worksheets

Entries in the logbook are made by 3 categories of persons:

The engineer (Technician), who is the logbook holder. It is important to note that holders may not certify their own entries. However, certain pages require the holder's signature.

The validator may be a supervisory licensed aircraft maintenance engineer who has regular professional contact with the holder and who may confirm certain entries; and

The assessor who will have either been authorised by the DGCA or, appointee of maintenance organisation, has been authorised by that organisation to confirm that the contents of the logbook when submitted to the CAA in support of a Licence application are correct and meets the requirements. An assessor may also perform the role of validator where appropriate. The assessor shall ensure that the Logbook holder has completed a sufficient number of tasks and is competent to:-

- Identify the appropriate standards

- Select the correct tools
- Perform the task to the required standard without direct supervision and in a timely manner
- Complete the required documentation

Instructions for the completion of each section are shown below. When confirming entries, validators and assessors shall sign and print their names and quote their position and the organisation.

All entries shall be made in ink. Dates entered shall follow the format DD/MM/YY. When submitted in support of an application for a licence any false entry in the Logbook will constitute an offence under the legislation currently in force.

Where additional pages are used, please complete the name and signature block.

Section 1.2 Personal Data

The holder shall record personal data, changes of permanent address and licence data during the currency of the logbook.

Section 1.3 Employment Record

The holder shall record changes of employer during the currency of the logbook. The validator shall confirm the information recorded.

Section 2.1 Basic Training Record

The holder shall record the satisfactory completion of a basic training course conducted at an Approved Basic Training organisation or other relevant institution accepted by DGCA. The Assessor shall record in the Remarks box any information relevant to the course; this should include whether the course was completed successfully, record of attendance or other relevant information. An Assessor must certify that the information in this section is correct.

Section 2.2 Basic Skills

This records achievement of the practical competencies that are required to be assessed for basic licence issue in the relevant category. The skills are annotated according to AML licence categories.

The training and assessment may be carried out on in-service aircraft, in workshops, on training equipment or simulators. Completion will be managed by the Assessor. Where training is conducted other than at an approved basic training organisation (such as within an approved maintenance organisation) an Assessor must still certify that the holder has achieved competence in the relevant skills listed.

Basic skills should be completed appropriate to the category required.

Section 3.1 Type Training and Supplementary Training

The holder shall record the satisfactory completion of any type training course. Other specialist training courses may also be recorded. An Assessor must certify that the information in this section is correct.

Section 3.2 Maintenance Experience

The holder shall record in this section, experience gained on in-service aircraft. The holder should make entries in the logbook on completion of the task. Individual entries shall be confirmed by a Validator at that time as the experience is gained. In confirming the entry, the Validator is certifying that the holder has performed the task. These entries will be evaluated by an Assessor periodically or before licence application to determine whether the range and content of the experience meets the required standard for the grant of a basic licence or type rating as appropriate.

When applying for a basic licence the range of tasks shall be appropriate to the licence category applied for. The 70% of tasks identified under main subjects listed under 3.2 should be supplemented with the basic licence application.

The experience required for a type rating will be dependent on previous experience. Where a type rating is sought on a type where the holder has no recent practical experience on another aircraft of comparable construction and systems, 6 months experience is required and at least 75% of the appropriate tasks listed in 3.3 must have been satisfactorily completed; this can be reduced to a minimum of 2 weeks and 25% of tasks where there is experience of a similar aircraft type of the same manufacturer. In all cases this must include knowledge of critical systems, component changes, operators' modifications and Airworthiness Directives.

Section 3.3 Typical Acceptable Experience

This section gives examples of typical maintenance tasks, based on system definition. It is not a definitive list and may be added to in order to support application for the licence category being sought.

Section 1.2 – Personal Data

Title :	**Forename(s) :**
Surname :	**Date of Birth :**

Nationality :	**Licence No :**
Address :	
Post Code :	**(Record changes of address overleaf)**
Name:..... **Signature:.....**	

Changes of Permanent address

1 :	**2 :**

3 :	**4 :**
Name:..... **Signature:.....**	

Licence Data (To be completed when licence issued)

Licence Number :	**List of Type Ratings:**	
Date of Issue :		
Basic Licence Categories held :		

Details of other licences held:		
Name:..... **Signature:.....**		

Licence Data – Type Ratings

List of Type Ratings :		

Name:…… **Signature:……**		

Section 1.3 – Employment Record

Employer :		
From:	**To:**	**Position in Company:**
Nature of Duties:		

Type of Aircraft or other products:			
Validated by:	**Signature:**	**Date:**	**Position in Company:**
Employer:			
From:	**To:**	**Position in Company:**	
Nature of Duties:			
Type of aircraft or other products:			
Validated by:	**Signature:**	**Date:**	**Position in Company:**
Name:…… Signature:……			

Section 2.1 – Basic Training

Name of Training Organization or Institution:	
Title of Course:	
Date commenced:	**Date completed:**

Remarks:			
Assessor:	**Signature:**	**Date:**	**Position:**
Name of Training Organization or Institution:			
Title of Course:			
Date commenced:		**Date completed:**	
Remarks:			
Assessor:	**Signature:**	**Date:**	**Position:**
Name:……. **Signature:**…….			

Section 2.2 – Basic Skills

Date	Competence obtained	Category	Assessor Signature, Name Position, Organization, Approval No.
	General Aircraft Maintenance		
	Awareness of hazards when working with aircraft – noise, heat, moving surfaces, propellers, intakes, exhausts.	A, B1, B2	

	Safety precautions when using fluids, gasses and chemicals.	A, B1, B2	
	Mechanical Fitting Practices (Common)		
	Related safety practices.	B1	
	Use a range of hand tools and power tools to achieve a dimensional accuracy of ± 0.010 in / 0.25 mm.	B1	
	Interpret and work to engineering drawings.	B1	
	Use basic tools and equipment for: cutting, forming and joining commonly used materials. (Ferrous and non-ferrous).	B1	
	Mark out use measuring equipment e.g. micrometers, rulers, verniers, height gauges, squares, vee blocks and surface tables.	B1	
	Select and use feeler, slip, limit, go / no go gauges.	A, B1	
	Fit and remove thread inserts.	A, B1	
	Drill and tap a threaded hole.	B1	
	Drill and ream perpendicular holes in ferrous and non-ferrous material.	B1	
	Assembly / Disassembly Practices (Common)		
	Apply correct procedures: Material storage and handling.	B1, B2	
	Identification of a range of materials.	B1, B2	
	Cleaning and Contamination control.	A, B1, B2	
	Use of a range of common assembly and disassembly tools plus specific application tools.	A, B1, B2	
Date	**Competence obtained**	**Category**	**Assessor Signature, Name Position, Organization, Approval No.**
	Adjust, set and use torque spanners.	A, B1, B2	
	Identify standards and specifications of common use parts i.e. nuts, bolts, washers and split pins.	A, B1, B2	

	Identify part numbers and serial numbers from an approved component overhaul manual or illustrated parts catalogue.	A, B1, B2	
	Assembly / Disassembly Practices (Common) (cont.)		
	Fit and remove a range of common use components e.g. split pins, tabs, spring and plain washers, plain and lock nuts.	A, B1, B2	
	Demonstrate competence when wire locking a variety of assemblies.	A, B1, B2	
	Measure shafts, bores, flanges, and adjacent surfaces using a variety of precision measuring instruments & record dimensions.	B1	
	Disassemble and assemble an aircraft component IAW manufacturer's overhaul manual.	B1, B2	
	Wiring and Looming (Common)		
	Identify cables and cables values by reference to the maintenance manuals.	B1, B2	
	Identify a range of electrical component symbols.	B1, B2	
	Interpret typical electrical wiring diagrams and schematics circuits.	B1, B2	
	Select and use appropriate cable stripping tools.	B1, B2	
	Using at least two crimping systems, select appropriate cable crimping tools and crimp cables to prepare cable ends or plug / socket terminals.	B1, B2	
	Solder cables to single and multipin connectors / tag boards.	B1, B2	
	Check an aircraft electrical circuit for continuity in conjunction with an electrical wiring diagram.	B1, B2	
Date	**Competence obtained**	**Category**	**Assessor Signature, Name Position, Organization, Approval No.**
	Carry out basic fault finding techniques using a range of test meters.	B1, B2	
	Prepare, and install a simple loom, using at least two binding methods.	B1, B2	

	Discuss and demonstrate the use of a range of test meters to measure volts, amps and resistance in practical task circumstances.	B1, B2	
	Carry out bonding and insulation tests.	B1, B2	
	Explain / demonstrate how to inspect aircraft areas for HIRF protection.	B1, B2	
	Carry out an inspection for lightning strike protection.	A, B1, B2	
	Insertion / extraction of electrical inserts in a variety of electrical connectors.	B1, B2	
	Inspection of electrical cable looms / bundles and cable trunking.	B1, B2	
	Electrical Power / Avionic Systems (Common)		
	Reading and interpretation of electrical schematic and wiring diagrams.	B1, B2	
	Replace a range of Avionic LRUs and apply associated BITE.	B1, B2	
	Remove / Refit Power Distribution Control & Protection equipment.	B1, B2	
	Generator power check / voltage adjustment.	B1, B2	
	Internal lighting bulb and filament changes.	A, B1, B2	
	Replace and function test IFE Equipment (excludes public address).	A, B1,B2	
	Replacement of ovens, boilers and beverage makers.	A, B1	
	Compass / Standby Compass compensation swing and calculations.	B1, B2	
	External lighting bulb and filament changes.	A, B1	
	Implement ESDS procedures.	A, B1, B2	
	Sheet Metal Practices		
	Use a range of hand tools, folding and bending machines and guillotine to shape aluminium alloy to achieve an accuracy of: ± 0.5 × of bend angle, ± 0.030 ins / 0.075 mm.	B1	

	Interpret engineering drawings and calculate size of material required to produce a component of material with one or more bends.	B1	
	Bend metal to a bend radius, angle and dimensions as given in the engineering drawing.	B1	
	Use a range of hand & power tools to position rivet holes to an accuracy of: ± 0.30ins/ 0.75mm.	B1	
	Identify a range of solid and blind rivets and fasteners.	B1	
	Identify, select and use a range of rivet setting equipment.	B1	
	Set arange of rivets in aluminium sheet. Range to include raised and countersunk rivets.	B1	
	Select and use a range of appropriate rivet closing tools.	B1	
	Select and fit sheet gripping pins.	B1	
	Identify rivet setting faults.	B1	
	Sheet Metal Practices (cont.)		
	Remove defective rivets without causing further damage to skin.	B1	
	Select and install oversize rivets as instructed in SRM.	B1	
	Set a range of other fasteners in aluminium sheet.	B1	
	Removal of corrosion and re-protection of aluminium sheet metal.	B1	
	Cut and shape material to required profile, finish edges and deburr using approved procedures.	B1	
Date	**Competence obtained**	**Category**	**Assessor Signature, Name Position, Organization, Approval No.**
	Maintenance Practices		
	Inspection of a structure using a mirror and a light source.	A, B1	
	Use at least one of the following NDT procedures: dye penetrant or fluorescent dye.	B1	

	Remove & replace a range of flexible hoses including clips and brackets.	A, B1	
	Remove & replace a range of rigid pipes, including clips and brackets.	A, B1	
	Locate components using referencing system, e.g. station numbers.	B1	
	Carry out a heavy landing / turbulence check.	A, B1	
	Assist in the raising / lowering of an aircraft on or off jacks.	A, B1	
	Jack aircraft level to rigging position.	A, B1	
	Assist in the towing of an aircraft.	A, B1	
	Remove and refit a range of aircraft panels.	A, B1	
	Lubrication of bearings, flight controls and undercarriages.	A, B1	
	Carry out Pre-Departure inspections a - Refuel aircraft. B - Check & replenish oil, hydraulic and pneumatic systems. Tyre Pressures. c - Perform Pre-flight Check.	A, B1	
	Carry out Daily inspections a - Service toilet and potable water system. b - Connect and use correctly ground electrical power. c - Connect and use correctly ground air supply.	A, B1	

Date	**Competence obtained**	**Category**	**Assessor Signature, Name Position, Organization, Approval No.**
	Maintenance Practices (cont.)		
	Replenish oxygen system.	A, B1	
	Inspect engine using boroscope.	B1	

	Assist in pressurisation test.	B1	
	Operational check of ground power.	A, B1	
	Carry out a VHF Radio check.	B1	
	Remove / Refit Main and APU Batteries.	A, B1	
	Remove / Refit Emergency Battery.	A, B1	
	Replace carpets.	A, B1	
	Replace crew seats.	A, B1	
	Replace passenger seats.	A, B1	
	Check seat belts for serviceability.	A, B1	
	Replace and test a range of electrical airframe / engine system components / boards.	B1	
	Check emergency equipment.	A, B1	
	Functional test of emergency equipment.	A, B1	
	Inspect toilet / vestibule unit for serviceability.	A, B1	
	Inspect Galley unit for serviceability.	A, B1	
	Inspect and test Engine and Airframe fire detecting systems.	B1	
	Inspection and functional testing of fire protection systems.	B1	
	Replace fire bottle.	B1	
	Removal / refit of Flight Control and subsequent rigging of system.	B1	
	Functional checks on hydraulically operated flight control systems.	B1	
	Hydraulic PFCU change.	B1	
	Replace and test fuel pump.	B1	
	Hydraulic Reservoir inspection, fluid replenishment and recharging.	A, B1	
	Hydraulic System Component Changes.	B1	
	Engine driven Hydraulic pump change (EDP).	B1	
	Electrical Hydraulic Pump Change (ACMP).	B1	
	Hydraulic pump quill drive inspection.	B1	
	Functional test of windscreen wiper system.	A, B1	

	Removal / refit of windscreen wiper blade.	A, B1	
Date	**Competence obtained**	**Category**	**Assessor Signature, Name Position, Organization, Approval No.**
	Maintenance Practices (cont.)		
	Wheel removal / installation.	A, B1	
	Wheel Brake removal / installation.	A, B1	
	Bleed hydraulic brakes.	A, B1	
	Replace oleo seals.	B1	
	Assess fluid levels and charge oleo.	B1	
	Functional test of Anti Skid system.	B1	
	Replace vacuum pump.	B1	
	Retrieve data from central maintenance system (CMU).	B1	
	Assist in APU removal / refit.	B1	
	Windows & Transparencies cleaning & polishing.	A, B1	
	Replacement of door seals.	B1	
	Remove / Refit cockpit windshield.	B1	
	Assist in a Power Plant Removal & Refit.	B1	
	Rig engine thrust lever.	B1	
	Replenish water / methanol system.	A, B1	
	Application of one / two component sealers and compounds.	B1	
	Assist in propeller removal / refit.	B1	
	Check propeller track.	B1	
	Mooring and picketing (Helicopter only).	A, B1	
	Removal / refit main rotor head (Helicopter only).	B1	
	Removal / refit transmission drive shaft (Helicopter only).	B1	
	Removal / refit main rotor gearbox (Helicopter only).	B1	
	Removal / refit tail rotor (Helicopter only).	B1	
	Flight control rigging.	B1	

	Main rotor track and balance.	B1	
	VHF Comms LRU replacement and Communication Check.	B2	
	HF LRU replacement and Communication Check.	B2	
	VHF Nav LRU replacement and system tests.	B2	
	Aerial replacement (various).	B2	
	Radio Standing Wave Measurement Tests.	B2	
Date	**Competence obtained**	**Category**	**Assessor Signature, Name Position, Organization, Approval No.**
	Maintenance Practices (cont.)		
	ATC / TCAS system component replacement and tests.	B2	
	Intercommunication / Passenger Address Component replacement and testing.	B2	
	Removal / installation of Pitot Static Instruments.	B1, B2	
	Check calibration of a Pitot Static System using a Pitot Static Leak tester.	B1, B2	
	Inertial Reference Unit / Platform Initialisation Check.	B2	
	Test ILS / VOR Systems using appropriate test equipment e.g. Nav 401/402.	B2	
	Gyroscopic Instrument component replacements and functional tests.	B2	
	Fuel Quantity Indicating systems functional testing.	B2	
	General Engine and aircraft temperature / pressure and flow instrumentation component replacement and testing.	B2	
	Flight Director Systems functional tests.	B2	
	Radio Altimeter system test utilising appropriate (555) test set.	B2	
	DME Functional Testing utilising appropriate test set.	B2	
	Weather Radar system component replacements and functional tests.	B2	

	Autothrottle systems experience and Functional Testing. (optional, fixed wing only).	B2	
	Automatic Flight Modes experience and Functional Testing. (optional, fixed wing only).	B2	
	Stability Augmentation Systems experience and functional testing. (optional, helicopters only).	B2	
	ADF component replacements and functional tests.	B2	
	Discuss / demonstrate typical maintenance practices on Electronic Flight Instrument systems.	B2	
	Discuss / demonstrate typical maintenance practices on Flight Management systems.	B2	
Name:……. Signature:……			

Section 3.1 – Type Training and Supplementary Training

Name of Training Organization or Institution:			
Title of Course:			
Date commenced:	**Date completed:**	**Examination Result:**	
Remarks:			
Assessor:	**Signature:**	**Date:**	**Position:**
Name of Training Organization or Institution:			
Title of Course:			

Date commenced:	Date completed:	Examination Result:
Remarks:		

Assessor:	Signature:	Date:	Position:

Name:……
Signature:……

Section 3.2 – Maintenance Experience

A/C Type :…… Organization :……

Date	A/C Reg.	Job No.	Task Details	Signature, Name, Organization, Approval No.

Name:……
Signature:……

Section 3.3 – Aircraft Type Practical Experience List of Tasks

Time limits/Maintenance checks

1 00 hour check (general aviation aircraft).
"B" or "C" check (transport category aircraft).
Review records for compliance with airworthiness directives.
Review records for compliance with component life limits.

Procedure for Inspection following heavy landing.
Procedure for Inspection following lightning strike.

Dimensions/Areas

Locate component(s) by station number.
Perform symmetry check

Lifting and Shoring

Assist in :
Jack aircraft nose or tail wheel.
Jack complete aircraft.
Sling or trestle major component.

Levelling/Weighing

Level aircraft.
Weigh aircraft.
Prepare weight and balance amendment.
Check aircraft against equipment list.

Towing and Taxiing

Tow aircraft.
Be part of aircraft towing team.

Parking and Mooring

Tie down aircraft.
Park, secure and cover aircraft.
Position aircraft in dock.
Secure rotor blades.

Placards and Markings

Check aircraft for correct placards.
Check aircraft for correct markings.

Servicing

Refuel aircraft.
Defuel aircraft.
Check tyre pressures.
Check oil level.
Check hydraulic fluid level.
Check accumulator pressure.
Charge accumulator.
Grease aircraft. Connect ground power.
Service toilet/water system.

Perform pre-flight/daily check.

Vibration and Noise Analysis

Analyse helicopter vibration problem.
Analyse noise spectrum.

Air Conditioning

Replace combustion heater.
Replace outflow valve.
Replace vapour cycle unit.
Replace air cycle unit.
Replace cabin blower.
Replace heat exchanger.
Replace pressurisation controller.
Clean outflow valves.
Check operation of air conditioning/heating system.
Check operation of pressurisation system.
Troubleshoot faulty system.

Autoflight

Install servos.
Rig bridle cables
Replace controller.
Replace amplifier.
Check operation of auto-pilot.
Check operation of auto-throttle.
Check operation of yaw damper.
Check and adjust servo clutch.
Perform autopilot gain adjustments.
Perform mach trim functional check.
Troubleshoot faulty system.
Check autoland system.
Check flight management systems.
Check stability augmentation system.

Communications

Replace VHF comm unit.
Replace HF comm unit.
Replace existing antenna.
Replace static discharge wicks.
Check operation of radios.
Perform antenna VSWR check.
Perform Selcal operational check.
Perform operational check of passenger address system.
Functionally check audio integrating system.
Repair co-axial cable.

Troubleshoot faulty system.
Check ELT for compliance with regulations.

Electrical Power

Charge lead/acid battery.
Charge ni-cad battery.
Check battery capacity.
Deep-cycle ni-cad battery.
Replace generator/alternator.
Replace switches.
Replace circuit breakers.
Adjust voltage regulator.
Amend electrical load analysis report.
Repair/replace electrical feeder cable.
Troubleshoot faulty system.

Equipment/Furnishings

Replace carpets.
Replace crew seats.
Replace passenger seats.
Check inertia reels.
Check seats/belts for security.
Check emergency equipment.
Repair toilet waste container.
Repair upholstery.
Change cabin configuration.

Fire Protection

Check fire bottle contents.
Check operation of warning system.
Check cabin fire extinguisher contents.
Check lavatory smoke detector system.
Install new fire bottle.
Replace fire bottle squib.
Inspect engine fire wire detection systems
Troubleshoot faulty system.

Flight Controls

Replace horizontal stabiliser.
Replace elevator.
Replace aileron.
Replace rudder.
Replace trim tabs.
Install control cable and fittings

Replace flaps.
Replace powered flying control unit
Replace flap actuator
Adjust trim tab.
Adjust control cable tension.
Check control range and sense of movement.
Check for correct assembly and locking.
Troubleshoot faulty system.

Fuel

Replace booster pump.
Replace fuel selector.
Replace fuel tank cells.
Check filters.
Flow check system.
Check calibration of fuel quantity gauges.
Check operation feed/selectors
Troubleshoot faulty system.

Hydraulics

Replace engine driven pump.
Replace standby pump.
Replace accumulator.
Check operation of shut off valve.
Check filters.
Check indicating systems.
Perform functional checks.
Troubleshoot faulty system.

Ice and Rain Protection

Replace pump.
Replace timer.
Install wiper motor.
Check operation of systems.
Troubleshoot faulty system

Indicating/recording systems

Replace flight data recorder (FDR).
Replace cockpit voice recorder.
Replace clock.
Replace master caution unit.
Perform FDR data retrieval.
Implement ESDS procedures.
Inspect for HIRF requirements.
Troubleshoot faulty system.

Landing Gear

Build up wheel.
Replace main wheel.
Replace nose wheel.
Replace shimmy damper.
Rig nose wheel steering.
Replace shock strut seals.
Replace brake unit.
Replace brake control valve.
Bleed brakes.
Test anti skid unit.
Test gear retraction.
Change bungees.
Adjust micro switches.
Charge struts.
Test outbrake system.
Troubleshoot faulty system.

Lights

Repair/replace rotating beacon.
Repair/replace landing lights.
Repair/replace navigation lights. Repair/replace interior lights.
Repair/replace emergency lighting system.
Perform emergency lighting system checks.
Troubleshoot faulty system.

Navigation

Calibrate magnetic direction indicator.
Replace airspeed indicator.
Replace altimeter.
Replace air data computer.
Replace VOR unit.
Replace ADI.
Replace HSI.
Check pitot static system for leaks.
Check operation of directional gyro.
Functional check weather radar.
Functional check doppler.
Functional check TCAS.
Functional check DME.
Functional check ATC Transponder.
Functional check flight director system.
Functional check inertial nav system.
Complete quadrantal error correction of ADF system.
Update flight management system database.
Check calibration of pitot static instruments.

Check calibration of pressure altitude reporting system. Troubleshoot faulty system.
Check marker systems.
Compass replacement direct/indirect. Check Satcom.
Check GPS.
Test AVM.

Oxygen

Inspect on board oxygen equipment.
Purge and recharge oxygen system.
Replace regulator.
Replace oxygen generator.
Test crew oxygen system.
Perform auto oxygen system deployment check.
Troubleshoot faulty system.

Pneumatic Systems

Replace filter.
Replace compressor.
Recharge dessicator.
Adjust regulator.
Check for leaks.
Troubleshoot faulty system.

Vacuum Systems

Replace vacuum pump. Check/replace filters.
Adjust regulator.
Troubleshoot faulty system.

Water/Waste

Replace water pump.
Replace tap.
Replace toilet pump.
Troubleshoot faulty system.

Central Maintenance System

Retrieve data from CMU.
Replace CMU.
Perform BITE check.
Troubleshoot faulty system.

Airborne Auxiliary power

Install APU.
Inspect hot section.
Troubleshoot faulty system.

Structures

Sheet metal repair.
Fibre glass repair.
Wooden repair.
Fabric repair.
Recover fabric control surface.
Treat corrosion.
Apply protective treatment.

Doors

Rig/adjust locking mechanism.
Adjust air stair system.
Check operation of emergency exits.
Test door warning system.
Troubleshoot faulty system.

Windows

Replace windshield.
Replace window.
Repair transparency.

Wings

Skin repair.
Recover fabric wing.
Replace tip.
Replace rib.
Check incidence/rig.

Propeller

Assemble prop after transportation.
Replace propeller.
Replace governor.
Adjust governor.
Perform static functional checks.
Check operation during ground run.
Check track.
Check setting of micro switches.
Dress out blade damage.
Dynamically balance prop.
Troubleshoot faulty system.

Main Rotors

Install rotor assembly.
Replace blades.
Replace damper assembly.
Check track.
Check static balance.
Check dynamic balance.
Troubleshoot.

Rotor Drive

Replace mast.
Replace drive coupling.
Replace clutch/f reewheel unit
Replace drive belt.
Install main gearbox.
Overhaul main gearbox.
Check gearbox chip detectors.

Tail Rotors
Install rotor assembly.
Replace blades.
Troubleshoot.

Tail Rotor Drive

Replace bevel gearbox.
Replace universal joints.
Overhaul bevel gearbox. I
Install drive assembly.
Check chip detectors.

Rotorcraft Flight Controls

Install swash plate.
Install mixing box.
Adjust pitch links.
Rig collective system.
Rig cyclic system.
Rig anti-torque system.
Check controls for assembly and locking.
Check controls for operation and sense.
Troubleshoot faulty system.

Power Plant

Build up ECU.
Replace engine.
Repair cooling baffles.

Repair cowling.
Adjust cowl flaps.
Repair faulty wiring.
Troubleshoot.

Piston Engines

Check crankshaft run-out.
Check tappet clearance.
Check compression.
Extract broken stud.
Install helicoil.
Perform ground run.
Establish/check reference RPM.
Troubleshoot.

Turbine Engines

Replace module.
Hot section inspection.
Engine ground run.
Establish reference power.
Trend monitoring/gas path analysis.
Troubleshoot.

Fuel and Control – Pistion

Replace engine driven pump
Adjust AMC
Adjust ABC
Install carburettor/injector
Clean injector nozzles
Replace primer line
Check carburettor float setting
Troubleshoot faulty system

Fuel and control – Turbine

Replace FCU
Replace engine driven pump
Clean/test fuel nozzles
Clean/replace filters
Adjust FCU
Troubleshoot faulty system

Ignition Systems – Piston

Change mangneto
Change ignition vibration

Change plugs
Test plugs
Check H. T. leads
Install new leads
Check timing
Check system bonding
Troubleshoot faulty system

Ignition Systems – Turbine

Check glow plugs/ignitors
Check H. T. leads
Check ignition unit
Troubleshoot faulty system

Engine Controls

Rig thrust lever
Rig RPM control
Rig LP/HP fuel control
Check propeller synchronisation system
Check controls for correct assembly and locking
Check controls for range and sense of operation
Troubleshoot faulty system

Engine Indicating

Replace engine instrument(s)
Replace oil temperature bulb
Replace thermocouples
Check calibration
Troubleshoot faulty system

Exhaust – Piston

Replace exhaust gasket
Inspect welded repair
Pressure check cabin heater muff
Troubleshoot faulty system

Exhaust – Turbine

Change jet pipe
Change shroud assembly
Install trimmer
Oil

Change oil

Check filter(s)
Adjust pressure relief valve
Replace oil tank
Replace oil pump
Replace oil cooler
Replace firewall shut-off valve
Perform oil dilution
Troubleshoot faulty system

Starting

Replace starter
Replace Start relay
Replace start control valve
Check cranking speed
Troubleshoot faulty system

Turbocharger – Piston Engines

Replace PTR
Replace turbo-blower
Replace heat shields
Replace waste gate
Adjust density controller

Engine water Injection

Replace water/methanol pump
Flow check water/methanol system
Adjust water/methanol control unit
Check fluid for quality
Troubleshoot faulty system

Accessory Gearboxes

Replace Gearbox
Replace Drive shaft
Check chip detector

Appendix 3- Procedure 2- OJT Procedure

OJT Attachment 1.docx OJT Attchment 2.docx OJT Procedure.docx

CIVIL AVIATION AUTHORITY - SRI LANKA

On the Job Training (OJT) Log Procedure

1. Regulatory Requirement:

According to 66.A.45(b) ,The endorsement of aircraft type ratings requires the satisfactory completion of the relevant category B1, B2 or C aircraft type training. Aircraft type training shall consist of theoretical training and examination, and, except for the category C ratings, practical training and assessment and Shall have been started and completed within the three years preceding the application for a type rating endorsement.

In addition to the requirement of point (b), the endorsement of the first aircraft type rating within a given category/sub-category requires satisfactory completion of the corresponding On-the-Job Training, as described in Appendix III to SLCAIS 66.

The objective of OJT is to gain the required competence and experience in performing safe maintenance.

2. On-the-job-training

OJT is usually delivered peer-to-peer and shall take place on the aircraft, or aeronautical product, or at the workplace involving actual work task performance. OJT may include both line and base maintenance tasks and must comply with the requirements of Appendix III of the IS 66

OJT should be as follows:

4. On-the-Job Training (OJT) shall be approved by the DGCA.
5. OJT shall have been started and completed within the three years preceding the application for a type rating endorsement.

It shall be conducted at and under the control of a maintenance organisation appropriately approved for the maintenance of the particular aircraft type and shall be assessed by designated assessors appropriately qualified

The Content of the OJT:

OJT shall cover a cross section of tasks acceptable to the DGCA Sri Lanka. The OJT tasks to be completed shall be representative of the aircraft and systems both in complexity and in the technical input required to complete that task. While relatively simple tasks may be included, other more complex maintenance tasks shall also be incorporated and undertaken as appropriate to the aircraft type.

Each task shall be signed off by the student and countersigned by a designated supervisor. The tasks listed shall refer to an actual job card/work sheet, etc.

The final assessment of the completed OJT is mandatory and shall be performed by a designated assessor appropriately qualified.

The following data shall be addressed on the OJT worksheets/ logbook:

1. Name of Trainee;
2. Date of Birth;
3. Approved Maintenance Organisation;
4. Location;
5. Name of supervisor(s) and assessor, (including licence number if applicable);
6. Date of task completion;
7. Description of task and job card/work order/ tech log, etc;
8. Aircraft type and aircraft registration;
9. Aircraft rating applied for.

Type specific tasks may be substituted as applicable to the aircraft type concerned and licence category. OJT should demonstrate a variety and cross section of tasks both in terms of aircraft systems experience and in the complexity of the tasks performed. The design of the OJT program should consider which tasks for an aircraft will be mandatory irrespective of the experience reductions available by virtue of completing type training. There will be aircraft specific tasks that every applicant will need to carry out, irrespective of their experience.

This document provides a list of the tasks, which are required for the granting of a first B1 type Rating on IS 66 Aircraft Maintenance Licence . You must record OJT carried out on one type rating only. Work carried out must cover the full scope of the IS 66 sub-category. This OJT Log can also be used as part of a B1 Basic Licence application.

3. OJT record keeping

In order to facilitate the verification by the DGCA Sri Lanka, demonstration of the OJT shall consist of

(iii) detailed worksheets/logbook and

(iv) a compliance report demonstrating how the OJT meets the requirement of this Part.

The OJT report shall be issued by the Quality Manager in a letter head of the Maintenance Organization according to the format in the Attachment 1 and the "On the Job Training Procedure" in SLCAP 3070.

Type experience should be demonstrated by the submission (to the AMO assessor) of OJT records or a logbook showing tasks performed by the applicant. The maintenance organisation should provide applicants a schedule or plan indicating a list of tasks for a type rating to be performed under supervision. A record of the tasks completed should be entered into a logbook, which should be designed such that each or a group of tasks may be countersigned by a workplace supervisor, peer or assessor.
The logbook format and its use are clearly defined in Attachment 2 of this procedure. . A CAASL Standard Aircraft Maintenance Technician's logbook or a workplace 'Recent work experience record' worksheet can be utilized for the logging of OJT (refer to Appendix C). This worksheet may be printed off and used by an individual applicant to record evidence of their OJT experience or maintenance tasks performed.

2. Introduction

6. Instructions

OJT should include one to one supervision with a Licenced Aircraft Engineer (LAE) that holds the appropriate aircraft type qualification to the scope of the tasks being assessed.
The OJT should involve actual work tasks performed on the aircraft/ components covering line and or base maintenance tasks.
The use of simulators/simulated tasks for OJT is not permitted.
At least 50% of the itemized tasks for the scope of the type rating must be completed. Some tasks should be completed from each paragraph. Other tasks may be completed as an alternative to those identified when relevant.
Up to 50% of the required OJT may be carried out prior to the aircraft theoretical training starts.
OJT tasks may be completed during the practical element of the Type Training Course (PTR) if the work is supervised and then certified by the same LAE.
The supervisor should aim to oversee the complete process of the task, including task completion, use of manuals and procedures, observance of safety measures, warning and recommendations and adequate and appropriate behavior in the maintenance environment. The supervisor should personally observe the work being performed to ensure the safe completeness and should be readily available for consultation, if needed during the OJT performance. The supervisor should provide a brief report/comments regarding the above.
Each completed OJT Log should include a variety of fault finding, diagnosis, troubleshooting, inspection, check and repair, servicing, deactivation, activation, reactivation, removal/installation and testing. The trainee must be involved in the decision –making process. The trainee must show sufficient hand skills with regard to mechanical, avionic and electrical techniques.

Supervisor should countersign the task and signoff/release the maintenance, as the trainee is not qualified to do so.

A designated Assessor is to conduct the final assessment of the completed OJT. This assessment should include the confirmation of the completion of the required diversity and quantity of the OJT and should be based on the supervisions reports, feedback and content of the OJT log.

The procedure for OJT is overviewed in the Maintenance Organization Exposition (MOE) of the relevant Maintenance Organization.

The Attachment 1 to this procedure will be submitted with the type rating application together with the Attachment 2. A copy of this log (Attachment 2) will be kept with the application for company approval and will be available for audit purposes on the individuals Quality file.

Note: it is a requirement of the ETOPS training programme that, ETOPS specific items carried out under supervision and must be recorded in a PER/Log Book. For the first ETOPS aircraft please use page 6 of this document.

Attachment 1

On the Job Training (OJT) Report
Compliance Report

Reference: IS.145.****

The Certificate is issued to:……(name of the Applicant)……

Date of Birth: …… Place of Birth:……..

……*NAME AND ADDRESS OF ORG*……

Reference: IS.145.****

A maintenance organisation approved to provide On the Job Training (OJT) in accordance with IS 145

This certificate conforms that the above named person has completed the OJT course of training stated below and complies with the following.

(TYPE RATING AS PER PART 66 List)

Requirement	***Confirmed***
OJT completed at an approved IS 145 Organisation	YES / NO
Completed OJT covers a representative cross section of tasks from Appendix 2, Part-66	YES / NO
Minimum 50% of applicable tasks to the category completed and are representative in nature	YES / NO
No more that 50% of the OJT completed before the completion of the IS 147 Type training	YES / NO
OJT Logbook assessed including Supervisors comments	YES / NO

Compliance Statement: The competence of the delegate has been assessed together with the contents of this logbook, which contains the sufficient diversity and quantity of tasks to meet the requirements of Part-66 for the first type rating as per AMC to Section 6 of Appendix III to IS 66, (item 8).

Signed:

Quality Manager Date:

Attachment 1

On the Job Training (OJT) Report
Compliance Report

Name:				**Licence Number:**	
Staff number		**Date of Birth:**		**Place of Birth:**	
Start of the OJT	**Date**		**End of the OJT**	**Date**	

Details of supervisor/s and Assessor

Signatory Position	Signatory Name	Stamp	Licence Number	Category/Limitation	Signature

Attachment 1

Aircraft:		**Engine:**		**Scope:**	

Type Rating Applied for :

Signatory Declaration: I have personally overseen the task, including task completion , the use of manuals and procedures, observance of safety measures, warning and recommendations and have observed adequate and appropriate behavior in the maintenance environment . Each box signatory is requested to write a brief report concerning the above.

Signatory Position	Signatory Name	Reports/Comments-with regard to behavior /competency etc.	Stamp

Assessor Declaration: Based on the content of this OJT Log and the report/comments above I confirm completion of the required diversity and quality which is to the appropriate standard and that this process confirms to the OJT Procedure as stated in the MOE Section 3.15.of the Mainteannace Organization and SLCAP 3070 issued by DGCA. To this end I assess the applicant as acceptable for First Type Rating.

Assessor Name		**Assessor Signature**	
Date		**Stamp**	

Attachment 1

On the Job Training (OJT) Log

1. ETOPS Tasks

ETOPS Tasks	SCOPE B1/B2	DATE	A/C REG	LOG/CARD REF/DESCRIPTION OF TASK/FULL ATA REF	Engineer Stamp	Supervisor Stamp
ETOPS-carry out an ETOPS Specific task						
ETOPS-carry out an ETOPS Specific task						
ETOPS-carry out an ETOPS Specific task						
ETOPS-carry out an ETOPS Specific task						
ETOPS-carry out an ETOPS Specific task						
ETOPS-carry out an ETOPS Specific task						

Attachment 1

2. Check List – Tick off as each task completed.

This is a summary of the tasks completed. Please tick off each tasks completed according to the each Chapters as mentioned in # 3 below. “3. On the Job Training (OJT) Log Entries

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90	91	91	93	94	95	96
97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112
113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128
129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144
145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176
177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192
193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208
209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224
225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240
241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256
257	258														

Attachment 1

3. On the Job Training (OJT) Log Entries

Chapter 05-time Limits/ Maintenance Checks	SCOPE B1/B2	DATE	A/C REG	LOG/CARD REF/DESCRIPTION OF TASK/FULL ATA REF	Engineer Stamp	Supervisor Stamp
1.Assist carrying out a scheduled maintenance check i.a.w. AMM						
2. Review Aircraft maintenance log for correct completion.						
3. Review maintenance task cards for correct completion						
4. Review records for compliance with Airworthiness Directives.						
5. Review records for compliance with component life limits.						
6.Procedure for inspection following heavy landing.						
7.Procedure for inspection following lightning strike.						

Chapter 07- Lifting and Shoring Assist in	SCOPE B1/B2	DATE	A/C REG	LOG/CARD REF/DESCRIPTION OF TASK/FULL ATA REF	Engineer Stamp	Supervisor Stamp
8. Jack aircraft nose or tail wheel.						
9. Jack complete aircraft.						

Attachment 1

10. Sling or trestle major component						
Chapter 08- Levelling/Weighing	**SCOPE B1/B2**	**DATE**	**A/C REG**	**LOG/CARD REF/DESCRIPTION OF TASK/FULL ATA REF**	**Engineer Stamp**	**Supervisor Stamp**
Level aircraft.						
Prepare weight and balance amendment.						
Check aircraft against equipment list.						
Weigh aircraft.						

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.(all relevant ATA chapters to be included)
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Relevent additional tasks	**SCOPE B1/B2**	**DATE**	**A/C REG**	**LOG/CARD REF/DESCRIPTION OF TASK/FULL ATA REF**	**Engineer Stamp**	**Supervisor Stamp**

APPENDIX 4

EVALUATION OF APPLICATION FOR ISSUANCE OF AML-LEVEL OF INVOLMENT & DELEGATION OF AUTHORITY

Action	Initial Evaluation / Responsibility	Final Evaluation/Responsibility	Expert Advice by
1._Conduct of Knowledge Examination for Basic Licence	SCAI(PLE)	D(TOPL)	DDG(FSR)
1.1 Evaluation of an application			
11.1 Eligibility Requirement	SCAI(PLES)	D(TOPL)	DDG(FSR)
1.2 Conduct of Examination			
1.2.1 Preparation of Questions	*EXAMINATION PANEL	CHAIRMAN OF THE EXAMINATION PANEL	DDG(FSR)
1.2.2 Updating of Question Bank	*EXAMINATION PANEL	CHAIRMAN OF THE EXAMINATION PANEL	DDG(FSR)
1.2.3 Preparation of Question Papers	EXAMINATION PANEL	CHAIRMAN OF THE EXAMINATION PANEL	DDG(FSR)
1.2.4 Conduct of Examination / Invigilation	SCAO(PLES)	D(TOPL)	DDG(FSR)
1.2.5 Answer Paper marking	DESIGNATED EXAMINER/ EXAMINATION PANEL	DIRECTOR (ARA)/ EXAMINATION PANEL	DDG(FSR)
1.2.6 Release of results	DESIGNATED EXAMINER/ EXAMINATION PANEL	DIRECTOR (ARA)	DDG(FSR)
1.2.7 Maintaining of records of question papers and answer sheets	SCAI(PLES)	D(TOPL)	DDG(FSR)
1.2.8 Publish results in the website	SCAIPL	D(TOPL)	DDG(FSR)

Action	Initial Evaluation / Responsibility	Final Evaluation/Responsibility	Expert Advice by
2. Evaluation of Training & Experience Requirement	SCAIAW	DIRECTOR (ARA)	DDG(FSR)
2.1 Issuance of AML Basic Licence	SCAIPLNFC	D(TOPL)	DDG(FSR) / DIRECTOR (ARA)
3. Renewal of AML/ Reactivation of AML			
3.1 Evaluation of an application	CAIPLNFC/SCAIPLNFC	D(TOPL)	DDG(FSR) / SCAIAWX / DIRECTOR (ARA) /SCAIAW
4. Issuance of Type Rating			
4.1 Conduct of Type Training	SCAI(AW)/ DIRECTOR (ARA)	SLAL TECHNICAL TRAINING SCHOOL	
4.1.1 Grant Approval of Training Organization	SCAIAW (responsible for 147)	DIRECTOR (ARA)	DDG(FSR) /SCAIAWX
4.1.2 Preparation/development of Training programmes	SCAIAW (responsible for 147)	SLAL TECHNICAL TRAINING SCHOOL	DDG(FSR) /SCAIAWX
4.1.3 Grant Approval of Training Programmes	SCAIAW (responsible for 147)	DIRECTOR (ARA)	DDG(FSR) /SCAIAWX
4.1.4 Conduct of Training Programmes	SCAIAW (responsible for 147)	SLAL TECHNICAL TRAINING SCHOOL	
4.2 Conduct of Knowledge Examination for Type Rating	SCAIAW (responsible for 147)	AMO/ SLAL TECHNICAL TRAINING SCHOOL	DDG(FSR) /SCAIAWX
4.2.1 Preparation of Questions	SCAIAW (responsible for	AMTO/ SLAL TECHNICAL TRAINING SCHOOL	DDG(FSR) /SCAIAWX

Action	Initial Evaluation / Responsibility	Final	Expert Advice by
4.2.2 Updating of Question Bank		AMTO/ SLAL TECHNICAL TRAINING SCHOOL	DDG(FSR) /SCAIAWX
4.2.3 Preparation of Question Papers		AMTO/ SLAL TECHNICAL TRAINING SCHOOL	DDG(FSR) /SCAIAWX
4.2.4 Conduct of Examination/ Invigilation		AMTO/ SLAL TECHNICAL TRAINING SCHOOL	DDG(FSR) /SCAIAWX
4.2.5 Answer Paper marking		**Evaluation/Responsibility**	DDG(FSR)/SCAIAWX
4.2.6 Release of results		AMTO/ SLAL TECHNICAL TRAINING SCHOOL	DDG(FSR)/SCAIAWX
4.2.7 Maintaining of records of question papers and answer sheets		AMTO/ SLAL TECHNICAL TRAINING SCHOOL	DG(FSR)/SCAIAWX/ DIRECTOR (ARA)
4.3 Conduct of Skill Test for Type Rating		AMTO/ SLAL AMTO	DDG(FSR)/SCAIAWX/ DIRECTOR (ARA)
4.4 Issuance of Type Ratings for AML	CAI(PLNFC)/SCAIPLNFC	D(TOPL)	DDG(FSR)/SCAIAWX/ DIRECTOR (ARA)
5. Extension of Licence Privileges to another category	SCAIPL	D(TOPL)	DDG(FSR)/SCAIAWX/ DIRECTOR (ARA)
6. Conduct of Surveillance			
6.1 Conduct oversight of the AML issued	SCAIAW/SCAIPLNFC	D(TOPL)/DIRECTOR (ARA)	SCAIAWX/DDGFSR
6.2 Conduct oversight of the Training Organizations	SCAIAW	DIRECTOR (ARA)	SCAIAWX/DDGFSR
6.3 Conduct oversight of the Skill Tests	SCAIAW	DIRECTOR (ARA)	SCAIAWX/DDGFSR
6.4 Conduct oversight of the knowledge examinations	SCAIAW	DIRECTOR (ARA)	SCAIAWX/DDGFSR

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