



Part 1 : Applicant's Information				
Name of Organisation:			ATO certificate no.: FTO-XXXX or ATCO-XXXX o	r MTO-XXXX
Title of proposed Trainin	g Program:	☐ Including PBN Training		Application No.:
CPL/IR(A) INTEG	RATED COURSE	☐ Including ME Training	Proposed Course Start Date: DD – MMM - YY	(For CAAT)
Type of Submission	No. of Attempt	How the training is to be delivered	Training device will be used for this course	
☐ Initial	☐ 1 st attempt	Classroom Delivery	☐ Simulator (FSTD/STD)	
☐ Amendment	☐ 2 nd attempt	☐ Virtual Classroom	☐ Actual aircraft	/Class
	☐ 3 rd attempt	☐ Flight Training		
		☐ Simulator Training		
		Other (specify)		
Coordinator Name/ conta	act: Mr./Ms. XXX YYYY/ em	nail		
The following documents	are submitted with this	application by applicant:		
1. Intention letter on	the applicant's company le	etterhead specifying the title of the training programm	ne	
2. Checklist for Trainir	ng Manual Approval			
☐ 3. Draft Manual				
4. Reference of training	ng material/Other relevant o	documents or required by competent official.		
Please ensure that				
• There is a list of effectiv	e pages. Every page is iden	tified with a page number, a date and a revision num	ber.	
 Training materials and Ex 	xamination Tests, in any for	rmat, shall be made accessible for CAAT inspector		
		d be detail appropriate with training materials		
	and signature in the first p	page must be signed		
Declaration and Signature				
the information provided i	n this form is complete and	d correct and that the documents provided are genui	ne.	
Signature:	A	Applicant's Name:	Date:	

PEL-TO-CK-072 Rev.00



Part II : Competent Official Use	Only		
Check Submitted document			
1 st checked	2 nd checked	3 rd checked	Financial (If applicable)
☐ Complete date	Complete date	Complete date	Invoice No
☐ Incomplete date	Incomplete date	Incomplete date	Date:
Signature/Name:	Signature/Name:	Signature/Name:	Receipt No
			Date:
	Verification result: Accept	☐ Reject	
This compliance check form has I	peen verified by:		
Signature:	Name:	D	ate:
(If applicable) Under supervisio	n of:		
Signature:	Name:	D	ate:
		Instructions:	
1) ATO is to conduct a self-assessm	ent as part of its compliance check by providin	g manual references into the 'Compliance chec	ked by ATO'.
2) Failure to complete this form ma	y result in a delay in approval processing. After	r 3 rd rejected, applicant shall start the new proc	ess from the beginning with the new intention letter.
3) Each check list item shall be asse	essed and given a result either Satisfactory or U	nsatisfactory	
(a) Satisfactory shall be g	given if the ATO is able to provide valid conten	ts and details that comply with the requirement	ts .
(b) Unsatisfactory shall b	pe given if the ATO is provide insufficient conte	nts/details that comply with the requirement as	s well as impractical/non-realistic process or procedures
that do not reflect an act	ual context and operations of the ATO.		
(c) Not applicable shall b	e filled out as N/A		
4) Provide detail in each subtopic/c	ontent of every subjects.		
5) Checklist does not address Traini	ng Manual requirements as per TCAR PEL Part (ORA. Applicant shall provide separate Training M	lanual checklist for review and approval along with this
checklist.			
6) The Theoretical Knowledge Chec	klist shall be submitted along with this checklis	st for both initial approvals and amendments aff	fecting theoretical knowledge training
7) In case of amendment, Non-appl	icable items in the checklist may be greyed ou	t by the applicant.	



Part III: Training Devices (FSTD) and Long Briefing

List of F	STDs used for	the course.					
No.	Training Device (s)	Туре	FSTD Qualification	Sim Certificate No.	Primary reference document	Serial Number	Expiry Date

Long l	Briefing		
No.	Subject	Duration	Reference of Documentation



Part IV : Regulatory Requirements

		Regulatory Requirement(s)				iance (checked by ATO		CAA	T Officials Use Only
No.	Subject	Description	Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
	General Requirement						1			
		Applicants for the SPL shall be at least 17 years of age	TCAR PEL PART FCL FCL.080							
1	Pre-entry requirement	When ensuring that the applicant complies with the prerequisites for the course, in accordance with ORA.ATO.145, the ATO should check that the applicant has enough knowledge of mathematics, physics and English to facilitate the understanding of the theoretical knowledge instruction content of the course.	AMC1 to Appendix 3							
2	SPL Privileges and	(a) The privileges of the holder of an SPL are to participate to Flying training with an instructor or to fly solo under the supervision of an instructor or to fly as authorised by an examiner for the purpose of a skill test. These privileges are restricted to the airspace of the kingdom of Thailand. (b) A student pilot shall not fly solo unless authorised to do so and supervised by a flight instructor.	TCAR PEL PART FCL a FCL.085							
	Conditions	(c) Before his/her first solo flight, a student pilot shall hold a valid license, at least a Student pilot license when no other license is held.								
		The exercise of the privileges granted by a licence shall be dependent upon the validity of the ratings contained therein, if applicable, and of the medical certificate as appropriate to the privileges exercised.	TCAR PEL PART FCL FCL.040							
		An applicant for a CPL shall be at least 18 years of age.								
3	Conditions for CPL Issuance	An applicant for the issue of a CPL shall have fulfilled the requirements for the class or type rating of the aircraft used in the skill test.	TCAR PEL PART FCL FCL.300, FCL.305							
4	CPL Privileges	The privileges of the holder of a CPL (Aeroplane, Helicopters, Airship, and Power-lift) are, within the appropriate aircraft category, to: (1) exercise all the privileges of the holder of an LAPL and a PPL; (2) act as PIC or co-pilot of any aircraft engaged in operations other than commercial air transport;	TCAR PEL PART FCL FCL.305							



		Regulatory Requirement(s)		C	Compli	ance (checked by ATO		CAA	T Officials Use Only
No.	Subject	Description	Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
		(3) act as PIC in commercial air transport of any single-pilot aircraft subject to the restrictions specified in FCL.060 and in this Subpart;(4) act as co-pilot in commercial air transport subject to the restrictions specified in FCL.060.								
5	Operations Under IFR	Operations under IFR on an aeroplane, helicopter, airship or powered-lift aircraft shall be conducted only by holders of a PPL, CPL, MPL and ATPL, and with an IR appropriate to the category of aircraft or, if an IR appropriate to the category of aircraft is not available, only while undergoing skill testing or dual instruction	TCAR PEL PART FCL FCL.600							
6	IR Privileges and Conditions	The privileges of a holder of an IR are to fly aircraft under IFR, including PBN operations with a minimum decision height of: (1) no less than 200 feet (60 m); (2) less than 200 ft (60 m), provided that they are authorised to do so in accordance with TCAR OPS Part SPA Conditions (1) Holders of an IR shall exercise their privileges in accordance with the conditions established in Appendix 8 to this Part. (2) To exercise privileges as PIC under IFR in multi-pilot operation in helicopters, holders of an IR(H) shall have at least 70 hours of instrument time of which up to 30 hours may be instrument ground time.	TCAR PEL PART FCL FCL.605							
7	Conditions for IR Issuance	Applicants for an IR shall hold a CPL, in the appropriate aircraft category and Have completed at least 50 hours of cross-country flight time as PIC in aeroplanes, TMGs, helicopters or airships, of which at least 10 or, in the case of airships, 20 hours shall be in the relevant aircraft category.	TCAR PEL PART FCL FCL.610				Cover by Appen	dix 3	3	
8	Theoretical and Flight Instruction Requirements	An applicant for a CPL shall have completed theoretical knowledge instruction and flight instruction at an ATO, in accordance with Appendix 3 to TCAR PEL PART FCL. Applicants for an IR shall have completed a course of theoretical knowledge and flight instruction at an ATO. The course shall be an integrated training course which includes training for the IR, in accordance with Appendix 3 to this regulation	TCAR PEL PART FCL FCL.315 APPENDIX3, D. TCAR PEL PART FCL FCL.615							



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No.	Subject	Description	Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
9	CPL and IR Skill Test	An applicant for a CPL shall pass a skill test in accordance with Appendix 4 to this regulation to demonstrate the ability to perform, as PIC of the appropriate aircraft category, the relevant procedures and maneuvers with the competency appropriate to the privileges granted.	TCAR PEL PART FCL FCL.320							
	Requirement	Applicants for an IR shall pass a skill test in accordance with Appendix 7 to this Part to demonstrate their ability to perform the relevant procedures and maneuvers with a degree of competency appropriate to the privileges granted.	TCAR PEL PART FCL FCL.620							
10	Upset Prevention and Recovery Training (UPRT)	Theoretical knowledge and flight instruction for the issue of a CPL(A) shall include upset prevention and recovery training.	TCAR PEL PART FCL FCL.315.A							
11	Theoretical Knowledge Bridge Instruction for CPL Holders in Another Category	An applicant for a CPL holding a CPL in another category of aircraft shall have received theoretical knowledge bridge instruction on an approved course according to the differences identified between the CPL syllabi for different aircraft categories.	APPENDIX 1 - Crediting of theoretical knowledge							
12	Theoretical Knowledge Examination Requirements	(For applicants who holding a CPL in another category of aircraft) the applicant shall pass theoretical knowledge examinations as defined in this Part for the following subjects in the appropriate aircraft category: - 021 Aircraft General Knowledge: Airframe and Systems, Electrics, Powerplant, Emergency Equipment, - 022 Aircraft General Knowledge: Instrumentation, - 032/034 Performance Aeroplanes or Helicopters, as applicable, - 070 Operational Procedures, and - 080 Principles of Flight.	APPENDIX 1 - Crediting of theoretical knowledge							
13	Theoretical Knowledge Credit for CPL Applicants with IR	An applicant for a CPL having passed the relevant theoretical examinations for an IR in the same category of aircraft is credited towards the theoretical knowledge requirements in the following subjects: - Human Performance, - Meteorology.	APPENDIX 1 - Crediting of theoretical knowledge							
14	Aim of CPL/IR(A) Integrated Course	The aim of the CPL(A) and IR(A) integrated course is to train pilots to the level of proficiency necessary to operate single-pilot single-engine or multi-engine aeroplanes in commercial air transport and to obtain the CPL(A)/IR.	TCAR PEL PART FCL APPENDIX 3, C., 1.							



		Regulatory Requirement(s)		C	Compli	ance o	checked by ATO		CAA	T Officials Use Only	
No.	Subject	Description	Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark	
	Continuous Training Requirement for	An applicant wishing to undertake a CPL(A)/IR integrated course shall complete all the instructional stages in one continuous course of training as arranged by an ATO.	TCAR PEL PART FCL APPENDIX 3, C., 2.								
15	CPL/IR(A) Integrated Course	The CPL/IR integrated course should last between 9 and 30 months. This period may be extended where additional flying training or ground instruction is provided by the ATO.	AMC1 to APPENDIX3, C.,								
16	Admission and Crediting Criteria for CPL/IR(A)	An applicant may be admitted to training either as an ab-initio entrant, or as a holder of a PPL(A) or PPL(H) issued in accordance with Annex 1 to the Chicago Convention. In the case of a PPL(A) or PPL(H) entrant, 50% of the hours flown prior to the course shall be credited, up to a maximum of 40 hours flying experience, or 45 hours if an aeroplane night rating has been obtained, of which up to 20 hours may count towards the requirement for dual instruction flight time.	TCAR PEL PART FCL APPENDIX 3, C., 3.								
17	Integrated Course	Credit for previous experience given to an applicant who already holds a PPL should be entered into the applicant's training record. In the case of a student pilot who does not hold a pilot licence and with the approval of the CAAT, an ATO may designate certain dual exercises to be flown in a helicopter or a TMG up to a maximum of 20 hours.	AMC1 to APPENDIX3, C., (b)								
18	Components of CPL/IR(A) Integrated Course	The course shall comprise: (a) theoretical knowledge instruction to CPL(A) and IR knowledge level, or an ATPL(A) theoretical knowledge instruction as defined in this appendix chapter A paragraph 6; and (b) visual and instrument flying training.	TCAR PEL PART FCL APPENDIX 3, C., 4.								
19	Remedial Options for CPL/IR(A) Applicants	An applicant failing or unable to complete the entire CPL/IR(A) course may apply to the CAAT for the theoretical knowledge examination and skill test for a licence with lower privileges and an IR if the applicable requirements are met.	TCAR PEL PART FCL APPENDIX 3, C., 5.								
20	Training Hours Definition	Whenever reference is made to a certain amount of hours of training, this means a full hour. Time not directly assigned to training (such as breaks, etc.) is not to be counted towards the total amount of time that is required.	AMC1 to Appendix 3								
	Theoretical Knowledge and Flight Training for CPL/IR(A)										



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No.	Subject	Description		Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
		A CPL(A)/IR theoretical knowledge course shall comprise at least 500 hou instruction or an ATPL(A) theoretical knowledge instruction comprising at hours of instruction.		TCAR PEL PART FCL APPENDIX 3, C., 6.							
	Duration of CPL/IR(A)	The 500 hours of instruction should be divided in such a way that in each minimum hours are:	n subject the								
	Theoretical Knowledge Course	(1) Air law	25 hours								
	-Minimum Instruction	(2) Aircraft general knowledge	75 hours								
21	Hours	(3) Flight performance and planning	80 hours								
	-Breakdown of Instruction Hours (CPL/IR Knowledge)	(4) Human performance and limitations	20 hours	AMC1 to APPENDIX3, C.,							
		(5) Meteorology	40 hours	5							
		(6) Navigation	55 hours								
		(7) Operational procedures	15 hours								
		(8) Principles of flight	35 hours								
		(9) Communications	15 hours								
		* Other subdivision of hours may be agreed upon between the CAAT and									
		The 750 hours of instruction should be divided in such a way that in each	n subject the								
		minimum hours are:									
		Air law	35 hours								
		Aircraft general knowledge	100 hours								
	Breakdown of	Flight performance and planning	120 hours								
22	Instruction Hours for	Human performance and limitations	35 hours								
	ATP Knowledge	Meteorology	60 hours								
	(If applicable)	Navigation	90 hours						\vdash	+	
		Operational procedures	25 hours								
		Principles of flight	55 hours							\dashv	
		Communications	20 hours						\vdash		
		* Other subdivision of hours may be agreed upon between the CAAT and	the ATO								



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No.	Subject	Description	Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
23	Knowledge Demonstration for CPL/IR(A) Applicants	An applicant shall demonstrate a level of knowledge appropriate to the privileges granted to the holder of a CPL(A) and an IR. When an applicant demonstrates ATPL(A) theoretical knowledge examination, it shall be considered that this requirement is met.	TCAR PEL PART FCL APPENDIX 3, C., 7.							
24	Minimum Total Hours (Flight Training)	The flying training, not including type rating training, shall comprise a total of at least 180 hours, to include all progress tests, of which up to 40 hours for the entire course may be instrument ground time. Within the total of 180 hours, applicants shall complete at least:								
25	Dual Instruction Hours	80 hours of dual instruction, of which up to 40 hours may be instrument ground time;								
26	PIC/SPIC Requirement	70 hours as PIC, of which up to 55 hours may be SPIC. The instrument flight time as SPIC shall only be counted as PIC flight time up to a maximum of 20 hours (*SPIC experience may count towards PIC once the regulations outlined in TCAR PEL Part FCL and relevant regulations regarding SPIC are published and become effective)								
27	Cross-Country Flight Requirements	50 hours of cross-country flight as PIC, including a VFR cross-country flight of at least 540 km (300 NM), in the course of which full stop landings at two aerodromes different from the aerodrome of departure shall be made;	TCAR PEL PART FCL APPENDIX 3, C., 8.							
28	Night Flight Requirements	5 hours flight time shall be completed at night, comprising 3 hours of dual instruction, which shall include at least 1 hour of cross-country navigation and 5 solo take-offs and 5 solo full stop landings; and	7 TENDIN 3, C., 0.							
29	Instrument Flight Instruction Requirements	100 hours of instrument time comprising, at least 20 hours as SPIC; and 50 hours of instrument flight instruction, of which up to: (i) 25 hours may be instrument ground time in an FNPT I, or (ii) 40 hours may be instrument ground time in an FNPT II, FTD 2 or FFS, of which up to 10 hours may be conducted in an FNPT I.								
		An applicant holding a course completion certificate for the Basic Instrument Flight Module shall be credited with up to 10 hours towards the required instrument instruction time. Hours done in a BITD shall not be credited.								



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No.	Subject	Description	Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
30	Aircraft Training Requirement	5 hours to be carried out in an aeroplane certificated for the carriage of at least four persons that has a variable pitch propeller or a single lever power control, and retractable landing gear.								
	The flying instruction is upon between the CAAT of	divided into four phases (Other subdivision of phases and exercises may be agreed and the ATO)								
		Exercises up to the first solo flight comprise a total of at least 10 hours dual flight instruction on an SE aeroplane, including:								
	Flight Training - Phase 1 Exercises	(i) pre-flight operations, mass and balance determination, aeroplane inspection and servicing;	; AMC1 to APPENDIX3, D., (d), (1)							
31		(ii) aerodrome and traffic pattern operations, collision avoidance and precautions;								
31		(iii) control of the aeroplane by external visual references;								
		(iv) normal take-offs and landings;								
		(v) the basic UPRT exercises as specified in point (b) of AMC2 to Appendix 3; AMC1 to Appendix 5;								
		(vi) simulated engine failure.								
		Exercises up to the first solo cross-country flight comprise a total of at least 10 hours of dual flight instruction and at least 10 hours solo flight including								
		(i) maximum performance (short field and obstacle clearance) take-offs and short-field landings;								
20	Flight Training - Phase 2	(ii) flight by reference solely to instruments, including the completion of a 180 $^{\circ}$ turn;	AMC1 to APPENDIX3, D.,							
32	Exercises	(iii) dual cross-country flying using external visual references, DR and radio navigation aids, diversion procedures;	(d), (2)				_			
		(iv) aerodrome and traffic pattern operations at different aerodromes;								
		(v) crosswind take-offs and landings;	ited				_			_
		(vi) abnormal and emergency procedures and maneuvers, including simulated aeroplane equipment malfunctions;								



		Regulatory Requirement(s)		C	Compli	iance (checked by ATO		CAA	AT Officials Use Only
No.	Subject	Description	Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
		(vii) operations to, from and transiting controlled aerodromes, compliance with ATS procedures, R/T procedures and phraseology;								
		(viii) knowledge of meteorological briefing arrangements, evaluation of weather conditions for flight and use of AIS.								
		Exercises up to the VFR navigation progress test comprise a total of at least 5 hours of instruction and at least 40 hours as PIC.								
33	Flight Training - Phase 3	The dual instruction and testing up to the VFR navigation progress test and the skill test should contain the following:	AMC1 to APPENDIX3, C.,							
	Exercises	(i) repetition of exercises of phases 1 and 2; (i) VFR navigation progress test conducted by an FI not connected with the applicant's training; (i) dual night flight instruction	(d), (3)							
		Exercises up to the instrument rating skill test comprise								
		 (i) at least 55 hours instrument time, which may contain up to 25 hours of instrument ground time in an FNPT I or up to 40 hours in an FNPT II or FFS which should be conducted by an FI or an authorised SFI; (ii) 20 hours instrument time flown as SPIC; 								
		(iii) pre-flight procedures for IFR flights, including the use of the flight manual and appropriate ATS documents in the preparation of an IFR flight plan;								
34	Flight Training - Phase 4 Exercises	 (iv) procedures and maneuvers for IFR operation under normal, abnormal and emergency conditions covering at least: (A) transition from visual to instrument flight on take-off; (B) SIDs and arrivals; (C) en-route IFR procedures; (D) holding procedures; (E) instrument approaches to specified minima; (F) missed approach procedures; (G) landings from instrument approaches, including circling. 	AMC1 to APPENDIX3, D., (d), (4)							



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		(v) in-flight maneuvers and particular flight characteristics a exercises as specified in Sections A, B, C and D of Table AMC2 to Appendix 3; AMC1 to Appendix 5;										
		(vi) operation of either an SE or an ME aeroplane in the e in the case of an ME aeroplane operation of the aerop to instruments with one engine simulated inoperative and restart. The latter exercise is to be conducted at carried out in an FSTD.	olane solely and engine s	by reference shut-down								
		(vii) after completion of instrument training that is equival instrument flight module set out in AMC2 to Appendix as PIC at night.										
	Additional Skill	Additional Items required for skill test			TCAR PEL PART FCL							
35	Required for CPL(A)	Performance considerations and trim			APPENDIX 4 - Skill test							
	Proficiency	Altimeter settings			for the issue of a CPL, B.							
36	Upset Prevention and R Upset Prevention and Recovery Training	The UPRT elements and components specified in AMC2 to A Appendix 5 point (a) should be integrated into the flying train			AMC1 to Appendix 3 (c)							
		A. Aerodynamics	Pre- flight briefing	Flying training								
		A.1 General aerodynamic characteristics	•	•								
		A.2 Aeroplane certification and limitations	•	•	AMC2 to APPENDIX3,					Ш		
	Basic UPRT elements	A.4 Aerodynamics (high and low altitude)	•		Table 1: Basic UPRT							
37	and components	A.5 Aeroplane performance (high and low altitude)	•		elements and					\sqcup		
		A.6 AoA and stall awareness	•	•	components							
		A.7 Aeroplane stability	•	•								
		A.8 Control surface fundamentals • •					\vdash					
		A.9 Use of trim	•	•						\vdash		
		A.10 Icing and contamination effects	•	•						\vdash		
		A.11 Propeller slipstream (as applicable)	•	•								



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No.	Subject	Description			Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
		B. Causes of and contributing factors to upsets	Pre- flight briefing	Flying training								
		B.1 Environmental										
		B.2 Pilot-induced	•									
		B.3 Mechanical (aeroplane systems)	•									
		C. Safety review of accidents and incidents relating to aeroplane upsets	Pre- flight briefing	Flying training								
		C.1 Safety review of accidents and incidents relating to aeroplane upsets	•									
		D. G-load awareness and management	Pre- flight briefing	Flying training								
		D.1 Positive/negative/increasing/decreasing G-loads	•	•								
		D.2 Lateral G awareness (sideslip)	•	•								
		D.3 G-load management	•	•								
		E. Energy management	Pre- flight briefing	Flying training								
		E.1 Kinetic energy vs potential energy vs chemical energy (power)	•	•								
		F. Flight path management	Pre- flight briefing	Flying training								
		F.1 Relationship between pitch, power and performance	•	•								
		F.2 Performance and effects of differing power plants	•	•								
		F.3 Manual and automation inputs for guidance and control (if applicable)		•								
		F.4 Class-specific characteristics of flight path management	•	•								



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No.	Subject	Description			Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
		F.5 Management of go-arounds from various stages		•								
		during the approach										
		F.6 Automation management (if applicable)	•	•								
		F.7 Proper use of rudder	•	•								
		G. Recognition	Pre- flight briefing	Flying training								
		G.1 Class-specific examples of physiological, visual and instrument clues during developing and developed upset	•	•								
		G.2 Pitch/power/roll/yaw	•	•								
		G.3 Effective scanning (effective monitoring)	•	•								
		G.4 Stall protection systems and cues	•	•								
		G.5 Criteria for identifying stalls and upsets	•	•								
		H. System malfunction (including immediate handling and subsequent operational considerations, as applicable)	Pre- flight briefing	Flying training								
		H.1 Flight control defects	•	•								
		H.2 Engine failure (partial or full)	•	•								
		H.3 Instrument failures	•	•								
		H.4 Loss of reliable airspeed (training elements as per point (lb) of AMC2 ORA.ATO.125).	•	•								
		H.5 Automation failures	•	•								
		H.6 Stall protection system failures, including icing alerting systems	•	•								
38	Maneuver-based basic	A. Timely and appropriate intervention	Pre- flight briefing	Flying training	AMC2 to APPENDIX3, Table 2: Maneuver- based basic UPRT							
	UPRT exercises	A.1 Arresting divergence of the aeroplane from intended flight path	•	•	exercises							



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		A.2 Preventing flight at airspeeds inappropriate for the (intended flight) condition		•								
		A.3 Avoiding spins	•	•								
		B. Flight path management	Pre- flight briefing	Flying training								
		B.1 Steep turns	•	•								
		B.2 Slow flight (including flight at critically low airspeed)	•	•								
		B.3 High airspeed (including flight at relatively high airspeed)	•	•								
		C. Application of OEM recommendations (if applicable) during developing upsets	Pre- flight briefing	Flying training								
		C.1 Nose-high attitudes at various bank angles	•	•								
		C.2 Nose-low attitudes at various bank angles (including spiral dive)	•	•								
		D. Stall events in the following configurations	Pre- flight briefing	Flying training								
		D.1 Take-off configuration	•	•								
		D.2 Clean configuration	•	•								
		D.3 Landing configuration	•	•								
		A. TEM	Pre- flight briefing	Flying training	AMC2 to APPENDIX3,							
	Core elements and	A.1 TEM framework	•	•	Table 3: Core elements							
39	components of TEM,	A.2 Recognition of threats and errors	•	•	and components of							
	pilot competencies and human factors	A.3 Management of threats and errors	•	•	TEM, pilot competencies and							
	Human factors	A.4 Countermeasures against threats and errors to prevent undesired aircraft states, including early intervention and, when necessary to prevent upsets,	•	•	human factors							



		Regulatory Requirement(s)				C	Compli	ance o	checked by ATO		CAA	NT Officials Use Only
No.	Subject	Description			Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
		timely application of countermeasures to manage undesired aircraft states										
		B. Pilot Competencies, including CRM	Pre- flight briefing	Flying training								
		B.1 All elements listed in Table 1 of GM2 FCL.735.A	•	•								
		C. Human factors	Pre- flight briefing	Flying training								
		C.1 Instrument interpretation, active monitoring, checking	•	•								
		C.2 Distraction, inattention, fixation, fatigue	•	•								
		C.3 Human information processing, cognitive effects	•	•								
		C.4 Perceptual illusions (visual or physiological) and spatial disorientation, effects of G-loads	•	•								
		C.5 Stress, startle and surprise effect	•	•								
		C.6 Intuitive and counter-intuitive behavior	•	•								
		10 hours module is focused on the basics of flying by sole refincluding limited panel and unusual attitude recovery.	erence to ir	nstruments,								
		All exercises may be performed in an FNPT I or II or an FFS, for instrument flight training is in VMC, a suitable means of simulati should be used.			AMC2 to APPENDIX6.							
		A BITD may be used for the exercises 1, 2, 3, 4, 6, and 8.										
40	Basic Instrument Flight Module Training	The use of the BITD is subject to the following: (1) the training should be complemented by exercises on an (2) the record of the parameters of the flight must be available (3) an FI(A) or IRI(A) should conduct the instruction.										
		(a) Exercise 1:										
		(1) basic instrument flying without external visual cues;		0.001								
		(2) horizontal flight; power changes for acceleration or dece	eleration;	0:30 hours								
	(3) maintaining straight and level flight;											



		Regulatory Requirement(s)			C	ompli	ance o	hecked by ATO		CAA	T Officials Use Only
No.	Subject	Description		Reference	Yes	N _o	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
		(4) turns in level flight with 15 ° and 25 ° bank, left and right;									
		(5) roll-out onto predetermined headings.									
		(b) Exercise 2:									
		(1) repetition of exercise 1;									
		(2) additionally climbing, descending, maintaining heading and speed,	0:45 hours								
		transition to horizontal flight;									
		(3) climbing and descending turns.									
		(c) Exercise 3:									
		Instrument pattern:									
		(1) start exercise, decelerate to approach speed, flaps into approach									
		configuration;									
		(2) initiate standard turn (left or right);									
		(3) roll out on opposite heading, maintain new heading for 1 minute;	0:45 hours								
		(4) standard turn, gear down, descend 500 ft/min;									
		(5) roll out on initial heading, maintain descent (500 ft/min) and new									
		heading for 1 minute;									
		(6) transition to horizontal flight, 1000 ft below initial flight level;									
		(7) initiate go-around;									
		(8) climb at best rate of climb speed.									
		(d) Exercise 4:									
		Repetition of exercise 1 and steep turns with 45° bank; recovery	0:45 hours								
		from unusual attitudes.									
		(e) Exercise 5:	0:45 hours								
		Repetition of exercise 4.									
		(f) Exercise 6:	0.45						\vdash		
		(1) radio navigation using VOR, NDB or, if available, VDF;	0:45 hours						Н		
		(2) interception of predetermined QDM, QDR.							H		
		(g) Exercise 7:	0:45 hours								
		Repetition of exercise 1 and recovery from unusual attitudes.									
		(h) Exercise 8:	0:45 hours								



		Regulatory Requirement(s)			C	ompli	ance c	hecked by ATO		CAA	T Officials Use Only
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		(1) Repetition of exercise 1;									
		(2) turns, level change and recovery from unusual attitudes with simulated failure of the artificial horizon or directional gyro.									
		(i) Exercise 9:	0:45 hours								
		Recognition of, and recovery from, incipient and full stalls.									
		(j) Exercise 10: Repetition of exercises 6, 8 and 9	3:30 hours								
	PBN Training (If Applicat	T			I		l				
	PBN Training	Training shall be conducted with a flight crew composition at least composition minimum flight crew composition for conducting these RNP APCH as menthe training manual and operations manual of the ATO.		AMC10 to Appendix 6							
		Theoretical training									
41		The detailed theoretical knowledge syllabus is described at Appendix to A FCL.310; FCL.515(b); FCL.615(b) Theoretical knowledge examination.	AMC1								
	Theoretical PBN Training	Specifics elements concerning PBN can be found in Subject 062 Navigation navigation 062 07 00 00 Performance-based navigation (PBN) (up to 062 0		AMC10 to Appendix 6							
		This generic part of the theoretical training is not required to be complete Class or Type rating courses or any other training.	ed again for								
		RNAV system operating principles depending on its version (Part Num software version)	nber,								
		- RNAV systems operating principles;									
		 System limitations, if applicable, and their impact on the considered Pl operations 	3N								
		● its certified PBN capacity,									
42	Theoretical knowledge	 ARINC 424 path terminator (e.g : radius to fix segment), 									
	training to RNAV	 the various supported features (holding pattern, parallel offs) 	et routes,).	AMC10 to Appendix 6							
		- Verification of the validity of the navigation database;									
		- How to enter data in the RNAV system and how to cancel it or modify	it;								
		- RNAV system integration in the cockpit:									
		 connection to the Automatisms if applicable (flight director 	, autopilot),								
		flight mode annunciator,									



		Regulatory Requirement(s)		C	ompli	iance (checked by ATO		CAA	T Officials Use Only
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		interaction with other avionic systems.								
		- Identification of different navigation sensors (DME, VOR, IRU, GNSS) used by the RNAV system;								
		- Information and symbol display;								
		 Accuracy of course deviation indicator and its management depending on flight phase; 								
		- Procedure for entering a flight plan;								
		- Procedure for checking the consistency of the selected procedure ;								
		- Flight plan modification, treatment of discontinuities, treatment of changes (runway, arrival, destination aerodrome, alternate aerodrome);								
		- Warning, information or error messages generated by the system;								
		- Selecting and following a route, anticipating a turn, identification of the main waypoints;								
		- Management of holding pattern in automated or manual mode;								
		- 'Direct To' function;								
		- Different RNAV route/procedure interception mode;								
		- Treatment by the system of transition from RNAV towards conventional approaches (ILS, VOR);								
		- Selecting different RNP APCH: (LNAV, LPV, LNAV/VNAV if applicable);								
		- Identification by the RNAV system of PBN procedures (SID RNAV, STAR RNAV, LNAV, LNAV/VNAV, LPV) and how they are announced.								
		Ground Practical training								
		- The ground practical training shall cover operating and setting a RNAV navigation system similar to the system on board of the aircraft and shall cover all functionalities supported by the navigation system likely to be used in conducting a								
43	Ground practical training (RNAV system)	PBN procedure. - For the purpose of this training, the equipment used may be presented or run on a	AMC10 to Appendix 6							
		computer system, on a simulation bench, on an FSTD - flight simulation training device or on an aircraft on the ground.								
		- The duration of this training depends on the complexity of the RNAV system used and the recommendations of the manufacturer.								



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No.	Subject		Description	Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
		be o reco - if a p	minimum duration of training on a simple RNAV system (e.g. GNS 430W) shall f 2 hours. This training shall comply with system manufacturer's mmendation when applicable (e.g. Garmin G1000). silot receives initial training in an ATO on a system different from the one ne will use, it is necessary he/she be familiarised with his/her own RNAV								
44	FSTD training or flight instruction	In both operation operatio	ining shall be conducted: either on an aircraft of the same class or type as the one used in operations; or on a simulation training device representative of the aircraft used in operations, or compliant with ORA.ATO.135. cases, the RNAV equipment shall be comparable to the one used in ons context of the approval of an instrument rating training programme including erations, a sufficient number of RNP approaches shall be implemented in the programme taking into account the different means of guidance of the and the characteristics of the instrument approach procedures that may the conduct of the flight. ining shall include interruptions following the simulation of an abnormal								
	SE Training (single-pilot :		n (e.g. loss of RNAV capacity or RAIM warning if applicable gine aeroplanes) (If Applicable)								
		1. Dep									
		1.1	Preflight including: Documentation, Mass and balance, Weather briefing, NOTAM								
45	Flight Training Requirement for Skill	1.2	Pre-start Checks: 1.2.1 External, 1.2.2 Internal Engine Starting: Normal malfunctions	TCAR PEL PART FCL APPENDIX 9, B							
	Test (SE)	1.4 1.5	Taxiing Pre-departure Checks: Engine run-up (if applicable)								
		1.6	Take-off Procedure: Normal with flight manual flap settings, Crosswind (if conditions are available)	-							



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No.	Subject		Description	Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
		1.7	Climbing: Vx/Vy, Turns onto headings, Level off								
		1.8	ATC Liaison—Compliance, R/T procedures								
		2. Airw	ork (VMC)								
		2.1	Straight and Level Flight at various airspeeds including flight at critically low airspeed with and without flaps (including approach to Vmca when applicable)								
		2.2	Steep Turns (360° left and right at 45° bank)								
		2.3	Stalls and Recovery: Clean stall, Approach to stall in various configurations								
		2.4	Handling Using Autopilot and Flight Director (if applicable)								
		2.5	ATC Liaison — Compliance, R/T procedures								
		3A. En	Route Procedures VFR								
		3A.1	Flight Plan, Dead Reckoning, and Map Reading								
		3A.2	Maintenance of Altitude, Heading and Speed								
		3A.3	Orientation, Timing and Revision of ETAs								
		3A.4	Use of Radio Navigation Aids (if applicable)								
		3A.5	Flight Management (flight log, routine checks including fuel, systems, and icing)								
		3A.6	ATC Liaison—Compliance, R/T procedures								
		3B. Ins	trument Flight								
		3B.1	Includes Departure IFR, En Route IFR, Holding Procedures, 3D and 2D Operations, Flight Exercises, Failure of Localiser or Glideslope, ATC Liaison								
		4. Arri	val and Landings								
		4.1	Aerodrome Arrival Procedure								
		4.2	Normal Landing								
		4.3	Flapless Landing								
		4.4	Crosswind Landing (if suitable conditions)								
		4.5	Approach and Landing with Idle Power from up to 2,000 ft above the runway (single-engine aeroplanes only)								
		4.6	Go-Around from Minimum Height								
		4.7	Night Go-Around and Landing (if applicable)								-



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		4.8	ATC Liaison Compliance, R/T Procedures								
		5. Abn	normal and Emergency Procedures								
		5.1	Rejected Take-Off at a reasonable speed								
		5.2	Simulated Engine Failure after take-off (single-engine aeroplanes only)								
		5.3	Simulated Forced Landing without power (single-engine aeroplanes only)								
		5.4	Simulated Emergencies: Fire or smoke in flight, Systems' malfunctions as appropriate								
		5.6	ATC Liaison — Compliance, R/T procedures								
		6. UPR	ιτ								
		7.1	Flight Manoeuvres and Procedures: Manual flight with and without flight directors, at different speeds and altitudes, steep turns using 45° bank, 180° to 360° left and right, turns with and without spoilers, procedural instrument flying and manoeuvring including instrument departure and arrival, and visual approach								
		7.2	Upset Recovery Training: Recovery from stall events in various configurations, recovery from nose-high and nose-low at various bank angles								
		7.3	Go-around with engines operating from various stages during an instrument approach								
		7.4	Rejected landing with all engines operating from various heights below DH/MDH, 15 m (50 ft) above the runway threshold, after touchdown								
		Detaile	ed listing for aeroplane structure and equipment, normal operation of								
		system	ns and malfunctions:								
			dimensions: minimum required runway width for 180 ° turn.								
	Syllabus of	(2)	engine including auxiliary power unit:								
	Theoretical		(i) type of engine or engines;								
46	Knowledge for Class or Type Ratings – SE		(ii) in general, function of the following systems or components:	AMC1 FCL.725(a)							
	Aeroplanes		1. engine;								
			2. auxiliary power unit;								
			3. oil system;								
			4. fuel system;								



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No.	Subject	Description	Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
		5. ignition system;								
		6. starting system;								
		7. fire warning and extinguishing system;								
		8. generators and generator drives;								
		9. power indication;								
		10. reverse thrust;								
		11. water injection.								
		(iii) on piston or turbine-propeller engines additionally:								
		1. propeller system;								
		2. feathering system.								
		(iv) engine controls (including starter), engine instruments and								
		indications in the cockpit, their function, interrelation and								
		interpretation;								
		(v) engine operation, including APU, during engine start, start								
		and engine malfunctions, procedures for normal operation								
		in the correct sequence.								
		(3) fuel system:								
		(i) location of the fuel tanks, fuel pumps, fuel lines to the								
		engines, tank capacities, valves and measuring; (ii) location of the following systems:							_	
		(ii) location of the following systems: 1. filtering;								
		2. heating;								
		3. fueling and defueling;								
		4. dumping;								
		5. venting.								
		(iii) in the cockpit:							\dashv	
		the monitors and indicators of the fuel system;							_	
		quantity and flow indication, interpretation.								
		(iv) procedures:							\dashv	
		fuel procedures distribution into the various tanks;								



			Regulatory Requirement(s)		C	ompli	ance (checked by ATO		CAA	T Officials Use Only
No.	Subject		Description	Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
		2.	fuel supply, temperature control and fuel dumping.								
		(4) pressurisation ar	nd air conditioning:								
		(i)	components of the system and protection devices;								
		(ii)	cockpit monitors and indicators;								
		(iii)	interpretation about the operational condition;								
		(iv)	normal operation of the system during start, cruise,								
			approach and landing, air conditioning airflow and								
			temperature control.								
		(5) ice and rain pro	tection, windshield wipers and rain repellent:								
		(i)	ice protected components of the aeroplane including								
			engines, heat sources, controls and indications;								
		(ii)	operation of the anti-icing or de-icing system during take-								
			off, climb, cruise and descent, conditions requiring the use								
			of the protection systems;								
		(iii)	controls and indications of the windshield wipers and rain								
			repellent systems operation.								
		(6) hydraulic systen									
		(i)	components of the hydraulic system(s), quantities and								
			system pressure, hydraulically actuated components								
			associated to the respective hydraulic system;				1		$\vdash \mid$		
		(ii)	controls, monitors and indicators in the cockpit, function								
			and interrelation and interpretation of indications.								
		(7) landing gear:									
		(i)	main components of the:								
			. main landing gear;								
			. nose gear;						$\vdash \vdash$		
			. gear steering;						$\vdash \vdash$		
			. wheel brake system, including anti-skid.		<u> </u>				\sqcup		
		(ii)	gear retraction and extension (including changes in trim								
			and drag caused by gear operation);				1		$\vdash \mid$		
		(iii)	required tyre pressure, or location of the relevant placard;								



		Regulatory Requirement(s)		C	ompli	ance (checked by ATO		CAA	T Officials Use Only
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		(iv) controls and indicators including warning indicators in the								
		cockpit in relation to the retraction or extension condition								
		of the landing gear and brakes;								
		(v) components of the emergency extension system.								
		(8) flight controls and high lift devices:								
		(i)								
		1. aileron system;								
		2. elevator system;								
		3. rudder system;								
		4. trim system;								
		5. spoiler system;								
		6. lift devices;								
		7. stall warning system;								
		8. take-off configuration warning system.								
		(ii) flight control system from the cockpit controls to the								
		flight control or surfaces;								
		(iii) controls, monitors and indicators including warning								
		indicators of the systems mentioned under (8) (i),								
		interrelation and dependencies.								
		(9) electrical power supply:								
		(i) number, power, voltage, frequency and location of the main power system (AC or DC), auxiliary power system								
		location and external power system;								
		(ii) location of the controls, monitors and indicators in the								
		cockpit;								
		(iii) flight instruments, communication and navigation systems,						H		
		main and back-up power sources;								
		(iv) location of vital circuit breakers;						H		
		(v) generator operation and monitoring procedures of the								
		electrical power supply.								



			Re	egulatory Requirem	ent(s)			C	Compli	ance o	checked by ATO		CAA	T Officials Use Only
No.	Subject			Description			Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
		(10) flight instrume			nd navigation equipn	nent,								
		autoflight and		a recorders: antennae;			-							
		(ii)			of the following equ	inmont in		-						
		(II)		ckpit during normal		iipment in								
			1.	flight instruments			-							
			2.	flight manageme			-							
			3.		, including radio alti	meter·								
			4.		and navigation syste									
			5.	autopilot;			-							
			6.	•	der, cockpit voice re	corder and	-							
					unication recording for									
			7.	TAWS;										
			8.	collision avoidan	nce system;									
			9.	warning systems;	; and.									
			10.	optimum use, int	rstem, best practices terpretation of displ									
				information.			-							
		(11) cockpit, cabin						-						
		(i)			cockpit, cabin and c I the emergency ligh									
		(ii)	-	ion of the cabin and	d cargo doors, stairs,	, windows								
		(iii)			oxygen system and t	their								
				•	nd operation of the o									
			system	s for the crew and	passengers, required	d amount of								
			oxygen	by means of a tab	ole or diagram.									
		(12) emergency eq	quipment (operation and corre	ect application of the	following								
		emergency ed		n the aeroplane:										
		(i)	portab	le fire extinguisher;										
		(ii)	first-aid	d kits;										



			Regulatory Requirement(s)		С	ompli	ance o	checked by ATO		CAA	T Officials Use Only
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		(iii)	portable oxygen equipment;								
		(iv)	emergency ropes;								
		(v)	life-jacket;								
		(vi)	life rafts;								
		(vii)	emergency transmitters;								
		(viii)	crash axes;								
		(ix)	megaphones;								
		(x)	emergency signals.								
		(13) pneumatic sys	tem:								
		(i)	components of the pneumatic system, pressure source								
			and actuated components;								
		(ii)	controls, monitors and indicators in the cockpit and								
			function of the system;								
		(iii)	vacuum system.								
		Limitations:									
		(1) general limi									
		(i)									
			certification and maximum and minimum performance								
			data for all flight profiles, conditions and aircraft systems:								
			 maximum tail and crosswind-components at take-off and landing; 								
			2. maximum speeds for flap extension v_{fo} ;								
			 at various flap settings v_{fe}; 								
			4. for landing gear operation V _{lo} , M _{lo} ;								
			5. for extended landing gear v _{le} , M _{le} ;								
			6. for maximum rudder deflection V _a , M _a ;								
			7. for tyres;								
			8. one propeller feathered.								
		(ii)	5. She properter reathered.								
		(11)	1. minimum control speed air v _{mca} ;								



		R	egulatory Requirement(s)		C	ompli	ance (checked by ATO		CAA	T Officials Use Only
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		2.	minimum control speed ground vmcg;								
		3.	stall speed under various conditions vso, vs1;								
		4.	maximum speed vne, Mne;								
		5.	maximum speed for normal operation vmo,								
			Mmo;								
		6.	altitude and temperature limitations;								
		7.	stick shaker activation.								
		(iii)									
		1.	maximum airport pressure altitude, runway slope;								
		2.	maximum taxi mass;								
		3.	maximum take-off mass;								
		4.	maximum lift off mass;								
		5.	maximum landing mass;								
		6.	zero fuel mass;								
		7.	maximum dumping speed vdco, Mdco, vdce, Mdce;								
		8.	maximum load factor during operation;								
		9.	certificated range of centre of gravity.								
		(2) engine limitations:									
		(i) ope	rating data of the engines:								
		1.	time limits and maximum temperatures;								
		2.	minimum RPMs and temperatures;								
		3.	torque;								
		4.	maximum power for take-off and go-around on								
			pressure altitude or flight altitude and								
			temperature;								
		5.	piston engines: certified range of mixture;								
		6.	minimum and maximum oil temperature and								
			pressure;								
		7.	maximum starter time and required cooling;								



		Regulatory Requirement(s)		C	Compli	ance (checked by ATO		CAA	T Officials Use Only
No.	Subject	Description	Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
		8. time between two start attempts for engines and								
		auxiliary power unit;								
		9. for propeller: maximum RPM of propeller								
		triggering of automatic feathering device.								
		(ii) certified oil grades.								
		(3) systems limitations:								
		(i) operating data of the following systems:								
		1. pressurisation, air conditioning maximum pressures;								
		2. electrical power supply, maximum load of main power								
		system (AC or DC);								
		3. maximum time of power supply by battery in case of								
		emergency;								
		4. Mach trim system and yaw damper speed limits;								
		5. autopilot limitations of various modes;								
		6. ice protection;								
		7. speed and temperature limits of window heat;								
		8. temperature limits of engine and wing anti-ice.								
		(ii) fuel system: certified fuel specifications, minimum and								
		maximum pressures and temperature of the fuel.								
		(4) minimum equipment list.								
		Performance, flight planning and monitoring:								
		(5) performance calculation about speeds, gradients, masses in all conditions								
		for take-off, en-route, approach and landing according to the								
		documentation available (for example for take-off v ₁ , v _{mbe} , v _r , v _{lof} , v ₂ , take-								
		off distance, maximum take-off mass and the required stop distance) on								
		the following factors:			-			\vdash		
		(i) accelerate or stop distance;								
		(ii) take-off run and distance available (TORA, TODA);			-			\vdash		
		(iii) ground temperature, pressure altitude, slope, wind;								
		(iv) maximum load and maximum mass (for example ZFM);			1			\vdash		
		(v) minimum climb gradient after engine failure;								



	Regulatory Requirement(s) Compliance checked by ATO					ompli	ance (checked by ATO		CAA	T Officials Use Only
No.	Subject		Description	Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
		(vi)	influence of snow, slush, moisture and standing water								
			on the runway;								
		(vii)	possible single or dual engine failure during cruise flight;								
		(viii)	use of anti-icing systems;								
		(ix)	failure of water injection system or antiskid system;								
		(x)	speeds at reduced thrust, V_1 , V_{1red} , V_{mbe} , V_{mu} , V_r , V_{lof} , V_2 ;								
		(xi)	safe approach speed v_{ref} , on v_{mca} and turbulent conditions;								
		(xii)	effects of excessive approach speed and abnormal								
		(,,,,)	glideslope on the landing distance;	_							
		(xiii)	minimum climb gradient during approach and landing;	_							
		(xiv)	limiting values for a go-around with minimum fuel;		-				+		
		(xv)	maximum allowable landing mass and the landing distance for the destination and alternate aerodrome on								
			the following factors:								
			1. available landing distance;								
			 ground temperature, pressure altitude, runway slope and wind; 								
			fuel consumption to destination or alternate aerodrome;								
			4. influence of moisture on the runway, snow, slush and standing water;								
			5. failure of the water injection system or the anti- skid system;								
			6. influence of thrust reverser and spoilers.								
		(6) flight planning t	or normal and abnormal conditions:								
		(i)	optimum or maximum flight level;								
		(ii)	minimum required flight altitude;								
		(iii)	drift down procedure after an engine failure during cruise flight;								



		Regulatory Requirement(s)		C	ompli	ance (checked by ATO		CAA	T Officials Use Only
No.	Subject	Description	Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
		(iv) power setting of the engines during climb, cruise and holding under various circumstances, as well as the most economic cruising flight level; (v) calculation of a short range or long range flight plan; (vi) optimum and maximum flight level and power setting of the engines after engine failure. (7) flight monitoring. Load and balance and servicing: (1) load and balance: (i) load and trim sheet on the maximum masses for take-off and landing; (ii) centre of gravity limits; (iii) influence of fuel consumption on the centre of gravity; (iv) lashing points, load clamping, maximum ground load.								
		(i) fuel; (ii) oil; (iii) water; (iv) hydraulic; (v) oxygen; (vi) nitrogen; (vii) conditioned air; (viii) electric power; (ix) start air; (x) toilet and safety regulations. Emergency procedures: (1) recognition of the situation as well as immediate memory actions in correct sequence and for those conditions recognised as emergencies by the manufacturer and the CAAT for certification: (i) engine failure during take-off before and after v ₁ , as well as in-flight;								



			Regulatory Requirement(s)		С	ompli	ance c	hecked by ATO		CAA	T Officials Use Only
No.	Subject		Description	Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
		(ii)	malfunctions of the propeller system;								
		(iii)	engine overheat, engine fire on ground and in-flight;								
		(iv)	wheel well fire;								
		(v)	electrical smoke or fire;								
		(vi)	rapid decompression and emergency descent;								
		(vii)	air-conditioning overheat, anti-ice system overheat;								
		(viii)	fuel pump failure;								
		(ix)	fuel freezing overheat;								
		(x)	electric power failure;								
		(xi)	equipment cooling failure;								
		(xii)	flight instrument failure;								
		(xiii)	partial or total hydraulic failure;								
		(xiv)	failures at the lift devices and flight controls including boosters;								
		(xv)	cargo compartment smoke or fire.	-							
			to the approved abnormal and emergency checklist:	_							
		(i)	engine restart in-flight;	_							
		(ii)	landing gear emergency extension;	_							
		(iii)	application of the emergency brake system;								
		(iv)	emergency extension of lift devices;								
		(v)	fuel dumping;								
		(vi)	emergency descent.								
		Special requirements for	or 'glass cockpit' aeroplanes with EFIS								
		Additional learning obj									
		(1) genera	l rules of aeroplanes computer hardware and software design;								
		(2) logic o	f all crew information and alerting systems and their limitations;								
		(3) interac	tion of the different aeroplane computer systems, their								
		limitat	ions, the possibilities of computer fault recognition and the								
		action:	s to be performed on computer failures;								
		(4) norma	l procedures including all crew coordination duties;								



		Regulatory Requirement(s)		C	ompli	ance o	checked by ATO		CAA	NT Officials Use Only
No.	Subject	Description	Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
		(5) aeroplane operation with different computer degradations (basic flying).								
		Flight management systems.								
	ME Training (single-pilot	multi-engine aeroplanes) (If Applicable)								
		Unless otherwise determined in the operational suitability data established in accordance with EASA Part 21 or any equivalent material established in accordance with Type certification regulations acceptable to the CAAT								
47	General Requirement	For single-pilot multi-engine aeroplanes (1) The theoretical knowledge course for a single-pilot multi-engine class rating shall include at least 7 hours of instruction in multi-engine aeroplane operations, and								
		(2) The flight training course for a single-pilot multi-engine class or type rating shall include at least 2 hours and 30 minutes of dual flight instruction under normal conditions of multi-engine aeroplane operations, and not less than 3 hours 30 minutes of dual flight instruction in engine failure procedures and asymmetric flight techniques.	TCAR PEL PART FCL FCL.725.A							
		1. Departure								
		Preflight including: Documentation, Mass and balance, Weather briefing, NOTAM								
		1.2 Pre-start Checks: 1.2.1 External, 1.2.2 Internal								
		1.3 Engine Starting: Normal malfunctions								
		1.4 Taxiing								
	Flight Training	1.5 Pre-departure Checks: Engine run-up (if applicable)								
48	Requirement for Skill Test (ME)	Take-off Procedure: Normal with flight manual flap settings, Crosswind (if conditions are available)	TCAR PEL PART FCL, APPENDIX 9, B							
	TESC (INL)	1.7 Climbing: Vx/Vy, Turns onto headings, Level off	AFFEINDIA 9, B							
		1.8 ATC Liaison—Compliance, R/T procedures								
		2. Airwork (VMC)								
		Straight and Level Flight at various airspeeds including flight at critically low 2.1 airspeed with and without flaps (including approach to Vmca when applicable)								
		2.2 Steep Turns (360° left and right at 45° bank)								



			Regulatory Requirement(s)		C	ompli	ance o	checked by ATO		CAA	T Officials Use Only
No.	Subject		Description	Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
		2.3	Stalls and Recovery: Clean stall, Approach to stall in various configurations								
		2.4	Handling Using Autopilot and Flight Director (if applicable)								
		2.5	ATC Liaison — Compliance, R/T procedures								
		3A. En	Route Procedures VFR								
		3A.1	Flight Plan, Dead Reckoning, and Map Reading								
		3A.2	Maintenance of Altitude, Heading and Speed								
		3A.3	Orientation, Timing and Revision of ETAs								
		3A.4	Use of Radio Navigation Aids (if applicable)								
		3A.5	Flight Management (flight log, routine checks including fuel, systems, and icing)								
		3A.6	ATC Liaison—Compliance, R/T procedures								
			trument Flight								
			Includes Departure IFR, En Route IFR, Holding Procedures, 3D and 2D								
		3B.1	Operations, Flight Exercises, Failure of Localiser or Glideslope, ATC Liaison								
		4. Arri	val and Landings								
		4.1	Aerodrome Arrival Procedure								
		4.2	Normal Landing								
		4.3	Flapless Landing								
		4.4	Crosswind Landing (if suitable conditions)								
		4.5	Approach and Landing with Idle Power from up to 2,000 ft above the runway (single-engine aeroplanes only)								
		4.6	Go-Around from Minimum Height								
		4.7	Night Go-Around and Landing (if applicable)								
		4.8	ATC Liaison Compliance, R/T Procedures								
		5. Abn	ormal and Emergency Procedures								
		5.1	Rejected Take-Off at a reasonable speed								
		5.2	Simulated Engine Failure after take-off (single-engine aeroplanes only)								
		5.3	Simulated Forced Landing without power (single-engine aeroplanes only)								
		5.4	Simulated Emergencies: Fire or smoke in flight, Systems' malfunctions as								
			appropriate								



			Regulatory Requirement(s)		C	ompli	ance (checked by ATO		CAA	T Officials Use Only
No.	Subject		Description	Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
		5.5	ME aeroplanes and TMG training only: engine shutdown and restart (at a safe altitude if performed in the aircraft)								
		5.6	ATC Liaison — Compliance, R/T procedures								
		6. Sim	ulated Asymmetric Flight								
		6.1	Simulated engine failure during take-off (at a safe altitude unless carried out in an FFS or an FNPT II)								
		6.2	Asymmetric approach and go-around								
		6.3	Asymmetric approach and full-stop landing								
		6.4	ATC Liaison—Compliance, R/T procedures								
		7. UPF	Т								
		7.1	Flight Manoeuvres and Procedures: Manual flight with and without flight directors, at different speeds and altitudes, steep turns using 45° bank, 180° to 360° left and right, turns with and without spoilers, procedural instrument flying and manoeuvring including instrument departure and arrival, and								
			visual approach								
		7.2	Upset Recovery Training: Recovery from stall events in various configurations, recovery from nose-high and nose-low at various bank angles								
		7.3	Go-around with engines operating from various stages during an instrument approach								
		7.4	Rejected landing with all engines operating from various heights below DH/MDH, 15 m (50 ft) above the runway threshold, after touchdown								
			ed listing for aeroplane structure and equipment, normal operation of and malfunctions:								
		(6)	dimensions: minimum required runway width for 180 ° turn.								
	Syllabus of Theoretical	(7)	engine including auxiliary power unit:								
49	Knowledge for Class		(i) type of engine or engines;	AMC1 FCL.725(a)							
- 47	or Type Ratings – ME		(ii) in general, function of the following systems or components:	7 UVICE 1 CL.120(a)							
	Aeroplanes		1. engine;								
			2. auxiliary power unit;								-
			3. oil system;								



		Regulatory Requirement(s)				Compliance checked by ATO				CAAT Officials Use Only		
No.	Subject	Description	Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark		
		4. fuel system;										
		5. ignition system;										
		6. starting system;										
		7. fire warning and extinguishing system;										
		8. generators and generator drives;										
		9. power indication;										
		10. reverse thrust;										
		11. water injection.										
		(iii) on piston or turbine-propeller engines additionally:										
		1. propeller system;										
		2. feathering system.										
		(iv) engine controls (including starter), engine instruments and										
		indications in the cockpit, their function, interrelation and										
		interpretation;										
		(v) engine operation, including APU, during engine start, start										
		and engine malfunctions, procedures for normal operation										
		in the correct sequence.										
		(8) fuel system:		\vdash								
		(i) location of the fuel tanks, fuel pumps, fuel lines to the										
		engines, tank capacities, valves and measuring;		\vdash	1	-		+				
		(ii) location of the following systems: 1. filtering;						+				
		2. heating;		\vdash	1	1		+				
		3. fueling and defueling;						\vdash				
		4. dumping;						\vdash				
		5. venting.		\vdash				\vdash				
		(iii) in the cockpit:		\vdash				\vdash				
		1. the monitors and indicators of the fuel system;										
		quantity and flow indication, interpretation.			1	1						
		(iv) procedures:						\Box				



			Regulatory Requirement(s)		C	ompli	ance (checked by ATO		CAA	T Officials Use Only
No.	Subject		Description	Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
		1.	fuel procedures distribution into the various tanks;								
		2.	fuel supply, temperature control and fuel dumping.								
		(9) pressurisation ar	nd air conditioning:								
		(i)	components of the system and protection devices;								
		(ii)	cockpit monitors and indicators;								
		(iii)	interpretation about the operational condition;								
		(iv)	normal operation of the system during start, cruise,								
			approach and landing, air conditioning airflow and								
			temperature control.								
		(10) ice and rain prot	tection, windshield wipers and rain repellent:								
		(v)	ice protected components of the aeroplane including								
			engines, heat sources, controls and indications;								
		(vi)	operation of the anti-icing or de-icing system during take-								
			off, climb, cruise and descent, conditions requiring the use								
			of the protection systems;								
		(vii)	controls and indications of the windshield wipers and rain								
			repellent systems operation.								
		(11) hydraulic system									
		(i)	components of the hydraulic system(s), quantities and								
			system pressure, hydraulically actuated components								
			associated to the respective hydraulic system;								
		(ii)	controls, monitors and indicators in the cockpit, function								
			and interrelation and interpretation of indications.								
		(12) landing gear:									
		(i)	main components of the:								
			. main landing gear;		<u> </u>				\vdash		
			. nose gear;		<u> </u>				\vdash		
			. gear steering;		<u> </u>						
			. wheel brake system, including anti-skid.	_							
		(ii)	gear retraction and extension (including changes in trim								
			and drag caused by gear operation);								



			Regulatory Requirement(s)		С	ompli	ance o	checked by ATO		CAA	T Officials Use Only
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		(iii)	required tyre pressure, or location of the relevant placard;								
		(iv)	controls and indicators including warning indicators in the								
			cockpit in relation to the retraction or extension condition								
			of the landing gear and brakes;								
		(v)	components of the emergency extension system.								
		(13) flight controls ar	nd high lift devices:								
		(i)		_							
			1. aileron system;								
			2. elevator system;	_							
			3. rudder system;	_							
			4. trim system;	_							
			5. spoiler system;	_							
			6. lift devices;								
			7. stall warning system;								
			8. take-off configuration warning system.	_							
		(ii)	flight control system from the cockpit controls to the								
			flight control or surfaces;								
		(iii)	controls, monitors and indicators including warning								
			indicators of the systems mentioned under (8) (i),								
			interrelation and dependencies.	-							
		(14) electrical power		_							
		(i)	number, power, voltage, frequency and location of the								
			main power system (AC or DC), auxiliary power system								
			location and external power system;	-							
		(ii)	location of the controls, monitors and indicators in the								
		6	cockpit;				-		H		
		(iii)	flight instruments, communication and navigation systems,								
			main and back-up power sources;	_							
		(iv)	location of vital circuit breakers;						Н		
		(v)	generator operation and monitoring procedures of the								
			electrical power supply.								



			Reg	ulatory Requirement(s)			С	ompli	ance (checked by ATO		CAA	T Officials Use Only
No.	Subject			Description		Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
		_		unication, radar and navig	ation equipment,								
		autoflight and											
		(i)	visible a	· · · · · · · · · · · · · · · · · · ·	-11								
		(ii)		and instruments of the fo									
				pit during normal operation	OH:								
			1. 2.	flight instruments; flight management syste	mc								
				radar equipment, includi									
			4.	communication and navi									
				autopilot;	gation systems,								
				flight data recorder, cock	vnit voice recorder and								
			0.	data-link communication									
			7.	TAWS;	recording runction,								
			8.	collision avoidance syste	·m·								
			9.	warning systems; and.	,								
				weather radar system, be	est practices for								
				optimum use, interpreta									
				information.									
		(16) cockpit, cabin	and cargo o	compartment:									
		(i)	operatio	n of the exterior, cockpit,	cabin and cargo								
			compart	ment lighting and the em	ergency lighting;								
		(ii)	operatio	n of the cabin and cargo	doors, stairs, windows								
				ergency exits;									
		(iii)		mponents of the oxygen s									
				, oxygen masks and opera									
				for the crew and passeng									
				by means of a table or dia									
				peration and correct applied	cation of the following								
				the aeroplane:								_	
		(i)		fire extinguisher;								_	
		(ii)	first-aid l	kits;									



		Regulatory Requirement(s)		С	ompli	ance o	checked by ATO		CAA	T Officials Use Only
No.	Subject	Description	Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
		(iii) portable oxygen equipment;								
		(iv) emergency ropes;								
		(v) life-jacket;								
		(vi) life rafts;								
		(vii) emergency transmitters;								
		(viii) crash axes;								
		(ix) megaphones;								
		(x) emergency signals.								
		(18) pneumatic system:								
		(xi) components of the pneumatic system, pressure source								
		and actuated components;								
		(xii) controls, monitors and indicators in the cockpit and								
		function of the system;								
		(xiii) vacuum system.								
		Limitations:								
		(19) general limitations:								
		(i) certification of the aeroplane, category of operation, noise								
		certification and maximum and minimum performance data for all flight profiles, conditions and aircraft systems:								
		maximum tail and crosswind-components at								
		take-off and landing;								
		2. maximum speeds for flap extension v_{fo} ;								
		3. at various flap settings v _{fe} ;								
		4. for landing gear operation v _{lo} , M _{lo} ;								
		5. for extended landing gear v _{le} , M _{le} ;								
		6. for maximum rudder deflection v _a , M _a ;								
		7. for tyres;								
		8. one propeller feathered.								
		(ii)								
		1. minimum control speed air v_{mca} ;								



		R	egulatory Requirement(s)		C	Compli	ance o	checked by ATO		CAA	T Officials Use Only
No.	Subject		Description	Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
		2.	minimum control speed ground vmcg;								
		3.	stall speed under various conditions vso, vs1;								
		4.	maximum speed vne, Mne;								
		5.	maximum speed for normal operation vmo,								
			Mmo;								
		6.	altitude and temperature limitations;								
		7.	stick shaker activation.								
		(iii)									
		1.	maximum airport pressure altitude, runway slope;								
		2.	maximum taxi mass;								
		3.	maximum take-off mass;								
		4.	maximum lift off mass;								
		5.	maximum landing mass;								
		6.	zero fuel mass;								
		7.	maximum dumping speed vdco, Mdco, vdce, Mdce;								
		8.	maximum load factor during operation;								
		9.	certificated range of centre of gravity.								
		(20) engine limitations:									
		(i) opera	ing data of the engines:								
		1.	time limits and maximum temperatures;								
		2.	minimum RPMs and temperatures;								
		3.	torque;								
		4.	maximum power for take-off and go-around on								
			pressure altitude or flight altitude and								
			temperature;								
		5.	piston engines: certified range of mixture;								
		6.	minimum and maximum oil temperature and pressure;								
		7.	maximum starter time and required cooling;			1					



		Regulatory Requirement(s)		C	Compli	ance (checked by ATO		CAA	T Officials Use Only
No.	Subject	Description	Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
		8. time between two start attempts for engines and								
		auxiliary power unit;								
		9. for propeller: maximum RPM of propeller								
		triggering of automatic feathering device.								
		(ii) certified oil grades.								
		(21) systems limitations:								
		(i) operating data of the following systems:								
		1. pressurisation, air conditioning maximum pressures;								
		2. electrical power supply, maximum load of main power								
		system (AC or DC);								
		3. maximum time of power supply by battery in case of								
		emergency;								
		4. Mach trim system and yaw damper speed limits;								
		5. autopilot limitations of various modes;								
		6. ice protection;								
		7. speed and temperature limits of window heat;								
		8. temperature limits of engine and wing anti-ice.								
		(ii) fuel system: certified fuel specifications, minimum and								
		maximum pressures and temperature of the fuel.								
		(22) minimum equipment list.								
		Performance, flight planning and monitoring:								
		(23) performance calculation about speeds, gradients, masses in all conditions								
		for take-off, en-route, approach and landing according to the								
		documentation available (for example for take-off v_1 , v_{mbe} , v_r , v_{lof} , v_2 , take-off distance, maximum take-off mass and the required stop distance) on								
		the following factors:			1					
		(i) accelerate or stop distance;			1					
		(ii) take-off run and distance available (TORA, TODA); (iii) ground temperature, pressure altitude, slope, wind;			1					
					1					
		(iv) maximum load and maximum mass (for example ZFM);								
		(v) minimum climb gradient after engine failure;								



			Regulatory Requirement(s)		C	ompli	iance (checked by ATO		CAA	T Officials Use Only
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		(vi)	influence of snow, slush, moisture and standing water								
			on the runway;								
		(vii)	possible single or dual engine failure during cruise flight;								
		(viii)	use of anti-icing systems;								
		(ix)	failure of water injection system or antiskid system;								
		(x)	speeds at reduced thrust, V_1 , V_{1red} , V_{mbe} , V_{mu} , V_r , V_{lof} , V_2 ;								
		(xi)	safe approach speed v_{ref} , on v_{mca} and turbulent conditions;								
		(xii)	effects of excessive approach speed and abnormal								
		(111)	glideslope on the landing distance;	_							
		(xiii)	minimum climb gradient during approach and landing;	_							
		(xiv)	limiting values for a go-around with minimum fuel;		-		-		+		
		(xv)	maximum allowable landing mass and the landing distance for the destination and alternate aerodrome on								
			the following factors:								
			1. available landing distance;								
			 ground temperature, pressure altitude, runway slope and wind; 								
			3. fuel consumption to destination or alternate aerodrome;								
			4. influence of moisture on the runway, snow, slush and standing water;								
			5. failure of the water injection system or the anti- skid system;								
			6. influence of thrust reverser and spoilers.								
		(24) flight planning f	or normal and abnormal conditions:								
		(i)	optimum or maximum flight level;								
		(ii)	minimum required flight altitude;								
		(iii)	drift down procedure after an engine failure during cruise flight;								



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		(iv) power setting of the engines during climb, cruise and holding under various circumstances, as well as the most economic cruising flight level; (v) calculation of a short range or long range flight plan;								
		(vi) optimum and maximum flight level and power setting of the engines after engine failure.								
		(25) flight monitoring.								
		Load and balance and servicing:								
		(26) load and balance:								
		(i) load and trim sheet on the maximum masses for take-								
		off and landing;								
		(ii) centre of gravity limits;								
		(iii) influence of fuel consumption on the centre of gravity;								
		(iv) lashing points, load clamping, maximum ground load.								
		(27) servicing on ground, servicing connections for:								
		(i) fuel;								
		(ii) oil;								
		(iii) water;								
		(iv) hydraulic;								
		(v) oxygen;								
		(vi) nitrogen; (vii) conditioned air;								
		(viii) electric power;								
		(ix) start air;								
		(x) toilet and safety regulations.								
		Emergency procedures:								
		(28) recognition of the situation as well as immediate memory actions in correct								
		sequence and for those conditions recognised as emergencies by the manufacturer								
		and the CAAT for certification:								
		(i) engine failure during take-off before and after v ₁ , as well								
		as in-flight;								



			Regulatory Requirement(s)		С	ompli	iance d	hecked by ATO		CAA	T Officials Use Only
No.	Subject		Description	Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
		(ii)	malfunctions of the propeller system;								
		(iii)	engine overheat, engine fire on ground and in-flight;								
		(iv)	wheel well fire;								
		(v)	electrical smoke or fire;								
		(vi)	rapid decompression and emergency descent;								
		(vii)	air-conditioning overheat, anti-ice system overheat;								
		(viii)	fuel pump failure;								
		(ix)	fuel freezing overheat;								
		(x)	electric power failure;								
		(xi)	equipment cooling failure;								
		(xii)	flight instrument failure;								
		(xiii)	partial or total hydraulic failure;								
		(xiv)	failures at the lift devices and flight controls including								
			boosters;								
		(xv)	cargo compartment smoke or fire.								
		(29) actions according	to the approved abnormal and emergency checklist:								
		(i)	engine restart in-flight;								
		(ii)	landing gear emergency extension;								
		(iii)	application of the emergency brake system;								
		(iv)	emergency extension of lift devices;								
		(v)	fuel dumping;								
		(vi)	emergency descent.	_							
			or 'glass cockpit' aeroplanes with EFIS	_							
		Additional learning ob									
		(30) gen des	eral rules of aeroplanes computer hardware and software ign;								
		(31) logi	c of all crew information and alerting systems and their								
		limi	tations;								



		Regulatory Requirement(s)		C	ompli	ance (checked by ATO		AT Officials Use Only	
No.	Subject	Description	Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
		(32) interaction of the different aeroplane computer systems, their limitations, the possibilities of computer fault recognition and the actions to be performed on computer failures; (33) normal procedures including all crew coordination duties; (34) aeroplane operation with different computer degradations (basic flying).								
	Theoretical knowledge f	Flight management systems.								
50	Demonstration of knowledge and subjects covered (For Course with CPL/IR Knowledge)	An applicant for a CPL shall demonstrate a level of knowledge appropriate to the privileges granted in the following subjects: (a) subject 010 air law (b) subject 021 aircraft general knowledge — airframe, systems and power plant (c) subject 022 aircraft general knowledge — instrumentation (d) subject 031 flight performance and planning — mass and balance (e) subject 032 flight performance and planning — performance — aeroplanes (f) subject 033 flight performance and planning — flight planning and monitoring (g) subject 034 flight performance and planning — performance — helicopters (h) subject 040 human performance and limitations (i) subject 050 meteorology (j) subject 061 navigation — general navigation (k) subject 062 navigation — radio navigation (l) subject 070 operational procedures (m) subject 081 principles of flight — aeroplanes (n) subject 082 principles of flight — helicopters (o) subject 090 radio communications (p) subject area 100 knowledge, skills and attitudes (ksa) (Postponed, See cover regulation)	TCAR PEL PART FCL FCL.310 AMC1 FCL.310; FCL.515(b); FCL615(b) Appendix to AMC1 FCL.310; FCL.515(b); FCL615(b)							



		Regulatory Requirement(s)		C	Compli	ance (checked by ATO		CAA	T Officials Use Only
No.	Subject	Description	Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
		Applicants for an IR shall demonstrate a level of theoretical knowledge appropriate to the privileges granted in the following subjects: (1) subject 010 air law (2) subject 022 aircraft general knowledge — instrumentation (3) subject 033 flight performance and planning — flight planning and monitoring (4) subject 040 human performance and limitations (5) subject 050 meteorology (6) subject 062 navigation — radio navigation	TCAR PEL PART FCL FCL.615 AMC1 FCL.310; FCL.515(b); FCL615(b) Appendix to AMC1 FCL.310; FCL.515(b);							
51	Instructional Methods and Activities (For Course with CPL/IR Knowledge)	 (7) subject 090 communications The 500 hours of instruction, which also cover the Area 100 KSA (Postponed, see cover regulation), may include in suitable proportions: classroom work; lessons; tutorials; demonstrations, including those supported by demonstration equipment; exercises carried out as groups or individuals and based on pre-flight and enroute planning, communications, presentations and projects; exercises that use demonstration equipment or training devices; directed study including workbook exercises or assignments; aerodrome or aviation industry field trips; computer-based training and e-learning elements; progress tests, Area 100 KSA assessments and mental maths test(s); and (Postponed, See cover regulation) other training methods, media and tools approved by the CAAT. 	AMC1 to APPENDIX3, C., (c)							
52	Demonstration of knowledge and subjects covered (For Course with ATP Knowledge)	Applicants for the issue of an ATPL shall demonstrate a level of knowledge appropriate to the privileges granted in the following subjects: (1) subject 010 air law (2) subject 021 aircraft general knowledge — airframe, systems and power plant (3) subject 022 aircraft general knowledge — instrumentation (4) subject 031 flight performance and planning — mass and balance (5) subject 032 flight performance and planning — performance — aeroplanes	TCAR PEL PART FCL FCL.515							

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		Regulatory Requirement(s)		C	Compli	ance (checked by ATO		CAA	AT Officials Use Only
No.	Subject	Description	Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark
		(6) subject 033 flight performance and planning — flight planning and monitoring (7) subject 034 flight performance and planning — performance — helicopters (8) subject 040 human performance and limitations (9) subject 050 meteorology (10) subject 061 navigation — general navigation (11) subject 062 navigation — radio navigation (12) subject 070 operational procedures (13) subject 081 principles of flight — aeroplanes (14) subject 082 principles of flight — helicopters (15) subject 090 communications (16) subject area 100 knowledge, skills and attitudes (ksa) (Postponed, See cover								
53	Instructional Methods and Activities (For Course with ATP Knowledge)	regulation) The 750 hours of instruction, which also cover the Area 100 KSA (Postponed, See cover regulation), may include in suitable proportions: (1) classroom work; (2) lessons; (3) tutorials; (4) demonstrations, including those supported by demonstration equipment; (5) exercises carried out as groups or individuals and based on pre-flight and enroute planning, communications, presentations and projects; (6) exercises that use demonstration equipment or training devices; (7) directed study including workbook exercises or assignments; (8) aerodrome or aviation industry field trips; (9) computer-based training and e-learning elements; (10) progress tests, Area 100 KSA assessments and mental maths test(s); and (Postponed, See cover regulation) (11) other training methods, media and tools approved by the CAAT.	AMC1 to APPENDIX3, A., (c)							
	Theoretical knowledge E	Examination Requirement (Class Rating)			1					
54	Theoretical knowledge Examination Requirement	The applicant for a class or type rating shall pass a theoretical knowledge examination organised by the ATO to demonstrate the level of theoretical knowledge required for the safe operation of the applicable aircraft class or type.	TCAR PEL PART FCL FCL.725							

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	Regulatory Requirement(s)				Compliance checked by ATO				CAAT Officials Use Only		
No.	Subject	Description	Reference	Yes	No	N/A	Reference (Section/Chapter/ Page/Topic No.)	S	U	Remark	
		For single-pilot multi-engine aircraft, the theoretical knowledge examination shall be written and the number of multiple-choice questions shall depend on the complexity of the aircraft.									
		For single-engine aircraft, the theoretical knowledge examination shall be conducted verbally by the examiner during the skill test to determine whether or not a satisfactory level of knowledge has been achieved.									
	Skill Test Requirement										
55		Before a skill test for the issue of a licence, rating or certificate is taken, the applicant applicants shall have passed the required theoretical knowledge examination, except in the case of applicants undergoing a course of integrated flying training. In any case, the theoretical knowledge instruction shall always have been completed before the skill tests are taken.	TCAR PEL PART FCL								
56	CPL(A) and IR(A) Skill Test Requirement	Except for the issue of an airline transport pilot licence, the applicant applicants for a skill test shall be recommended for the test by the organisation ATO, DTO or person responsible for the training, once the training is completed. The training records shall be made available to the examiner.	FCL.030								
57		Upon completion of the related flying training the applicant shall take the CPL(A) skill test and the IR skill test on either a multi-engine aeroplane or a single-engine aeroplane.	TCAR PEL PART FCL APPENDIX 3, C., 9.								
58	Multi-engine IR(A) Skill Test Requirement	For a multi-engine IR(A), the skill test shall be taken in a multi-engine aeroplane. For a single-engine IR(A), the test shall be taken in a single-engine aeroplane. A multi-engine centreline thrust aeroplane shall be considered a single-engine aeroplane for the purposes of this point.	TCAR PEL PART FCL FCL620.A								
59	Skill Test Requirement for Class Rating	An applicant for the issue of a class or type rating shall pass a skill test in accordance with Appendix 9 to this Part regulation to demonstrate the skill required for the safe operation of the applicable class or type of aircraft.	TCAR PEL PART FCL FCL.725								