

Private Pilot Licence Examinations– 030 Flight Performance and Planning

Aeroplane and Helicopter

Syllabus Reference	Syllabus details & Associated Learning Objective	Aeroplane		Helicopter	
		PPL	Bridge Course	PPL	Bridge Course
030.00.00.00	FLIGHT PERFORMANCE AND PLANNING				
031.00.00.00	MASS AND BALANCE: AEROPLANES OR HELICOPTERS				
031.01.00.00	Purpose of mass and balance considerations				
031.01.01.00	Mass limitations				
031.01.01.01	Importance in regard to structural limitations	X	X	X	X
031.01.01.02	Importance in regard to performance limitations	X	X	X	X
031.01.02.00	CG limitations				
031.01.02.01	Importance in regard to stability and controllability	X	X	X	X
031.01.02.02	Importance in regard to performance	X	X	X	X
031.02.00.00	Loading				
031.02.01.00	Terminology				
031.02.01.01	Mass terms	X	X	X	X
031.02.01.02	Load terms (including fuel terms)	X	X	X	X
031.02.02.00	Mass limits				
031.02.02.01	Structural limitations	X	X	X	X
031.02.02.02	Performance limitations	X	X	X	X
031.02.02.03	Baggage compartment limitations	X	X	X	X
031.02.03.00	Mass calculations				
031.02.03.01	Maximum masses for take-off and landing	X	X	X	X
031.02.03.02	Use of standard masses for passengers, baggage and crew	X	X	X	X
031.02.04.00	Fundamentals of CG calculations				
031.02.04.01	Definition of centre of gravity	X	X	X	X
031.02.04.02	Conditions of equilibrium (balance of forces and balance of moments)	X	X	X	X
031.02.04.03	Basic calculations of CG	X	X	X	X
031.03.00.00	Mass and balance details of aircraft				
031.03.01.00	Contents of mass and balance documentation				
031.03.01.01	Datum and moment arm	X	X	X	X
031.03.01.02	CG position as distance from datum	X	X	X	X
031.03.02.00	Extraction of basic mass and balance data from aircraft documentation				
031.03.02.01	BEM	X	X	X	X
031.03.02.02	CG position or moment at BEM	X	X	X	X
031.03.02.03	Deviations from standard configuration	X	X	X	X
031.04.00.00	Determination of CG position				
031.04.01.00	Methods				
031.04.01.01	Arithmetic method	X	X	X	X
031.04.01.02	Graphic method	X	X	X	X
031.04.02.00	Load and trim sheet				
031.04.02.01	General considerations	X	X	X	X
031.04.02.02	Load sheet and CG envelope for light aeroplanes and for helicopters	X	X	X	X
032.00.00.00	PERFORMANCE: AEROPLANES				
032.01.01.00	Introduction				

032.01.01.01	Performance classes	x	x		
032.01.01.02	Stages of flight	x	x		
032.01.01.03	Effect of aeroplane mass, wind, altitude, runway slope and runway conditions	x	x		
032.01.01.04	Gradients	x	x		
032.01.02.00	SE aeroplanes				
032.01.02.01	Definitions of terms and speeds	x	x		
032.01.03.00	Take-off and landing performance				
032.01.03.01	Use of aeroplane flight manual data	x	x		
032.01.04.00	Climb and cruise performance				
032.01.04.01	Use of aeroplane flight data	x	x		
032.01.04.02	Effect of density altitude and aeroplane mass	x	x		
032.01.04.03	Endurance and the effects of the different recommended power or thrust settings	x	x		
032.01.04.04	Still air range with various power or thrust settings	x	x		
033.00.00.00	FLIGHT PLANNING AND FLIGHT MONITORING				
033.01.00.00	Flight planning for VFR flights				
033.01.01.00	VFR navigation plan				
033.01.01.01	Routes, airfields, heights and altitudes from VFR charts	x	x	x	x
033.01.01.02	Courses and distances from VFR charts	x	x	x	x
033.01.01.03	Aerodrome charts and aerodrome directory	x	x	x	x
033.01.01.04	Communications and radio navigation planning data	x	x	x	x
033.01.01.05	Completion of navigation plan	x	x	x	x
033.01.02.00	Fuel planning				
033.01.02.01	General knowledge	x	x	x	x
033.01.03.00	Pre-flight calculation of fuel required				
033.01.03.01	Calculation of extra fuel	x	x	x	x
033.01.03.02	Completion of the fuel section of the navigation plan (fuel log) and calculation of total fuel	x	x	x	x
033.02.00.00	Pre-flight preparation				
033.02.01.00	AIP and NOTAM briefing				
033.02.01.01	Ground facilities and services	x	x	x	x
033.02.01.02	Departure, destination and alternate aerodromes	x	x	x	x
033.02.01.03	Airway routings and airspace structure	x	x	x	x
033.02.02.00	Meteorological briefing				
033.02.02.01	Extraction and analysis of relevant data from meteorological documents	x	x	x	x
033.03.00.00	ICAO flight plan (ATS flight plan)				
033.03.01.00	Individual flight plan				
033.03.01.01	Format of flight plan	x	x	x	x
033.03.01.02	Completion of the flight plan	x	x	x	x
033.03.01.03	Submission of the flight plan	x	x	x	x
033.04.00.00	Flight monitoring and in-flight replanning				
033.04.01.00	Flight monitoring				
033.04.01.01	Monitoring of track and time	x	x	x	x
033.04.01.02	In-flight fuel management	x	x	x	x
033.04.01.03	In-flight re-planning in case of deviation from planned data	x	x	x	x
034.00.00.00	PERFORMANCE: HELICOPTERS				
034.01.00.00	General				
034.01.01.00	Introduction				
034.01.01.01	Stages of flight			x	x
034.01.01.02	Effect on performance of atmospheric, airport or heliport and helicopter conditions			x	x