

Redcliffe Aero Club

RECREATIONAL PILOT LICENCE QUESTIONNAIRE

The purpose of this questionnaire is to ensure your knowledge is sufficient to pass the RPL Flight Test requirements. Your answers should be thorough and include sufficient detail to demonstrate your suitability for test recommendation by your Instructor. This document will also serve as a personal reference in the future, when you are refreshing your knowledge.

Please type your answers into this Word document. You will need to attach other documents to show working. Please also reference your answers (eg: RPL Privileges & Limitations. Ref: CASR Part-61.G.1)

This questionnaire is based on flight test report form – *CASA Form 61-1486 (amended) 09/2014*.

Below is an extract from 61-1486. The form will be used by your Testing Officer to mark the outcomes of your RPL Flight Test.

Item No	MOS Ref	Description	Result
GROUND COMPONENT			
1	(i)	Underpinning Knowledge required for items 9 to 59	
2	2.1(a)	Privileges and limitations of the recreational pilot licence with aeroplane category rating;	
3	2.1(b)	Applicability of drug and alcohol regulations;	
4	2.1(c)	VFR aircraft instrument requirements;	
5	2.1(d)	Emergency equipment requirements;	
6	2.1(e)	Fuel planning and oil requirements for the flight;	
7	2.1(f)	Managing cargo and passengers;	
8	2.1(g)	Aircraft speed limitations	
9	C1.1	Communicating face-to-face	
10	C1.2	Operational communication using an aeronautical radio	
11	C2.1 *	Complete all required pre-flight actions and procedures	
FLIGHT COMPONENT			
12	C2.2	Perform pre-flight inspection	
13	C4.1	Plan fuel requirements	
14	C4.2 *	Manage fuel system	
15	C4.3 *	Refuel aircraft – <i>Must be covered via questioning if refuelling not required</i>	
16	C5.1	Manage passengers	
17	C5.2	Aid and assist passengers	
18	C5.3	Manage cargo	
19	NTS1.1	Maintain effective lookout	
20	NTS1.2	Maintain situational awareness	
21	NTS1.3	Assess situations and make decisions	
22	NTS1.4	Set priorities and manage tasks	
23	NTS1.5	Maintain effective communications and interpersonal relationships	
24	NTS2.1	Recognise and manage threats	
25	NTS2.2	Recognise and manage errors	
26	NTS2.3	Recognise and manage undesired aircraft state	
27	A1.1 *	Start and stop engine	
28	A1.2	Taxi aeroplane	
29	A2.1	Carry out pre-take-off procedures	
30	A2.2	Take-off aeroplane	
31	A2.3	Take-off aeroplane in a crosswind	
32	A2.4	Carry out after take-off procedures	
33	A2.5	Take-off aeroplane from 'short field'	
34	A3.1 *	Climb aeroplane	
35	A3.2	Maintain straight and level flight	
36	A3.3	Descend aeroplane	
37	A3.4	Turn aeroplane	
38	A3.5	Control aeroplane at slow speeds	
39	A3.6 *	Perform circuits and approaches	
40	A3.7	Local area airspace	
41	A4.1 *	Land aeroplane	
42	A4.2	Land aeroplane in a crosswind	
43	A4.3	Conduct a missed approach	
44	A4.4	Perform recovery from missed landing	
45	A4.5	Short landing	
46	A5.1 *	Enter and recover from a stall	
47	A5.2	Recover from incipient spin	
48	A5.3 *	Turn aeroplane steeply	
49	A5.4	Sideslip aeroplane (where flight manual permits)	
50	A6.1	Manage engine failure – take-off (simulated)	
51	A6.2	Manage engine failure in the circuit area (simulated)	
52	A6.3	Perform forced landing (simulated)	
53	A6.4	Conduct precautionary search and landing (simulated condition)	
54	A6.5	Manage other abnormal situations (simulated)	
55	A6.6	Recover from unusual flight attitudes	
56	IFF.1	Determine and monitor the serviceability of flight instruments and instrument power sources	
57	IFF.2	Perform manoeuvres using full instrument panel	
58	IFF.3	Recover from upset situations and unusual attitudes	
59	C2.3	Post-flight actions and procedures	

* Refer to MOS Schedule 5 – clause 3 (modifications)

Underpinning knowledge required for items 9 to 59

1. C1.2 When must the pilot in command test the radio apparatus?
How is the radio tested?
2. C2.1 What documents are required to be carried on board the aircraft?
3. C2.2 What is the minimum oil quantity required for engine operation in the Cessna 172S?
4. C2.2 What is the quantity of useable fuel (in litres) when the fuel tanks are filled to the bottom of the filler indicator tab?
5. How many 80Kg passengers can be carried with fuel to the bottom of the filler indicator tabs in a Cessna 172 with the following basic empty weight?

ITEM	WEIGHT Kg	ARM mm	MOMENT	INDEX * (IU)	CONFIGURATION (ALSO SEE EQUIPMENT LIST)
EMPTY WEIGHT	801.47	1062	851112		FOUR SEATS TOTAL
IMPERIAL					
	WEIGHT Lbs	ARM Inches	MOMENT		FOUR SEATS TOTAL
EMPTY WEIGHT	1766.9	41.809	73873		
THE ABOVE WEIGHTS INCLUDE: EMPTY WEIGHT: UNUSABLE FUEL & FULL ENGINE OIL					

6. C4.1 What is the minimum fuel required for a one hour flight in a Cessna 172S?
7. C2.2/4.2 When are you required to check the fuel quality and what should your actions be if you find water contamination?
8. C4.3 What precautions should you take prior to refuelling your aircraft?
9. C4.3 Another aircraft is parked at the fuel bowser and is being refuelled. How close can you park to this aircraft? How would you judge this distance?
10. C5.1 What are the minimum items that must be briefed to passengers prior to embarking the aircraft?
11. C5.2 One of your two passengers is un-able to walk. Which seat would you allocate to this passenger?
12. A3.7 Attach a copy of a VTC showing the flight boundaries and limitations that apply to an RPL holder operating from YRED. Assume you are not CTA endorsed and do not include areas where OCTA flight might be impractical (eg: tight squeezes between CTA or restricted areas)
13. A6.1 What is the ditching procedure listed in the Cessna 172S Pilot Operating Handbook?
14. A6.5 What would your actions be in the event of an electrical fire underneath the instrument panel?
15. IFF.1 The vacuum gauge indicates a low reading (outside of the green arc) during the engine run-up. List the instruments that will be affected.
16. IFF.2 What is VMC? List the VMC (clear of cloud and visibility) requirements in class G airspace.
17. IFF.2 What is the procedure if you inadvertently enter cloud?
18. A2.2/4.5 Calculate the density height at Redcliffe, given a QNH of 1008hPa and a temperature of 32°C
19. A6.5 State the indications of a failed alternator. What steps can be taken to bring the alternator back on line?
20. A6.5 What indications would you get from the flight and engine instruments if the master switch was turned off during flight?

2.1(a) Privileges and limitations of the recreational pilot licence with aeroplane category rating

21. What does a RPL authorise you to do?
22. What recency requirement relates to the carriage of passengers?
23. Excluding carriage of passenger recency, what are the recency requirements of the RPL?
24. Where may an RPL holder fly?

2.1(b) Applicability of drug and alcohol regulations

25. What limitations apply with regards to alcohol consumption and flying as a Pilot?

26. Is it safe to operate as pilot in command while taking prescription drugs?
27. What types of drugs could impair your ability to safely operate an aeroplane?
28. State what restrictions you as a pilot have with relation to alcohol consumption
29. State the CASA regulations regarding smoking in aircraft. State R.A.C's policy on smoking in aircraft.

2.1(c) VFR Aircraft Instrument Requirements

30. 35. CASA's CAO 20.18 lists the minimum instrumentation for VFR private operations. The Cessna 172 POH Section 6 Equipment List states the minimum required instruments and equipment for flight in a C172S.
 - a. List the minimum instruments required to be serviceable for any private VFR flight.
 - b. If the ammeter was unserviceable, is it okay to fly a C172S?
 - c. If the tachometer was unserviceable, is it okay to fly a C172S?
 - d. If the Directional Gyro was unserviceable, is it okay to fly a C172S?

2.1(d) Emergency Equipment Requirements

31. Where is the fire extinguisher located in the Cessna 172S and how would you check its serviceability?
32. When must you carry life jackets?
33. When must you wear life jackets?
34. Where is the ELT located and how is it activated?

2.1(e) Fuel planning and oil requirements for the flight

35. Determine the maximum amount of fuel that can be carried in your aircraft with the passenger load shown below. Plot both the Take-off weight (likely MTOW) and Zero Fuel Weight onto a loading envelope and attach it to this printed document.

Empty Weight/Moment	801.47Kg / 851112 Kg/mm	
Row 1	70kg Pilot	80kg PAX
Row 2	55kg Pax	65kg PAX
Baggage	10kg	
Fuel	?	

36. What is the difference between ashless dispersant and mineral oil and for what purpose is each used?
37. Describe how and why the mixture is leaned in the cruise.

2.1(f) Managing cargo and passengers

38. What is the maximum amount of passengers that you can carry in a Cessna 172S? Consider rules regarding carriage of children.
39. What is the maximum payload for Baggage Area A&B (Cessna 172S)?
40. Can cargo be placed on the seats in Row 2? If so, are there any restrictions?

2.1(g) Aircraft Speed Limitations

41. Complete the following table of speeds for the Cessna 172S:

	Name	Speed (Knots Indicated Airspeed)		
		2550LBS / 1156KG	2200LBS / 998KG	1900LBS / 862KG
V_{NE}	<i>Never Exceed Speed</i>	163		
V_{NO}				
V_A				
V_{FE}				

V_{AT}				
V_{TOSS}				
V_X				
V_Y				
V_{S1}				
V_{S0}				
V_{MD}				
Maximum Demonstrated Crosswind Velocity				

42. What is the acceptable static RPM range for the Cessna 172S and when/why is this checked?
43. By what percentage does the stall speed increase in a 60° angle of bank turn?
44. Calculate the take-off and landing distance required for your aircraft for the following 2 scenarios. Attach documents as required to showing your working:

	Scenario 1	Scenario 2
Pressure Height	MSL	1500ft
Temperature	30°C	25°C
Surface	Sealed	Grass
Wind	Nil	5kt Headwind
Weight	MTOW	1100kg