

Name: _____

Date: _____

CFI: _____



1. How long can you crank the starter before aborting the start attempt? What is the cooldown period between attempts? What is the max number of attempts?

10 Seconds, 30 second cooldown, 6 attempts max before 30 minute waiting period

2. How long can you wait before shutdown if no oil pressure appears

30 seconds in the summer, 60 seconds in the winter

3. Under what circumstances should an engine be leaned?

Taxi and cruise

4. Describe the recommended procedure for leaning an engine.

By turning the mixture knob – 50-75 rich of peak EGT or until an engine drop and three full turns back in

5. Describe the procedure for an engine fire during start up if the engine has started. If the engine has not started.

Continue cranking, power to 1800 RPM for a few minutes, mixture idle cutoff.

Continue cranking, throttle full open, mixture idle, fire ext. ready, ignition off, master off, fuel selector off, fire ext. discharge

TECNAM: no cranking

6. A left quartering tailwind exists during taxi, where should the flight controls be positioned?

Yoke forward and to the right

7. Describe the procedure to recover from a stall during departure with no flaps.

Full power, nose just below the horizon, recover to level flight, resume the climb at a safe airspeed

8. Describe the procedure to accomplish a go-around from an approach to land with full flaps.

Full power, flaps 20 degrees, carb heat in, pitching up to a climb at a safe airspeed, flaps 10, flaps out

9. Describe the procedure for an electrical fire in flight.

Emergency descent established, master off, vents closed, cabin heat off, fire ext. as required, land immediately if fire not extinguished, refer to forced landing checklist

10. Define the following:

Service Ceiling	The max height at which the rate of climb drops below a specified value
Max Gross Takeoff Weight	The maximum allowable weight for takeoff
V _X	Best angle of climb
V _Y	Best rate of climb
V _A	Maneuvering speed – abrupt control movements will not damage aircraft
V _{S0}	Stall speed in landing configuration
V _{S1}	Stall speed in a specified configuration
V _{FE}	Maximum flap extended speed
V _{NO}	Normal operating range
V _{NE}	Never exceed speed
Best Glide	Speed used to provide the furthest distance horizontally over a vertical descent without power

11. What are the lateral and vertical limits of Burlington's Class C airspace?

Within a 5nm ring – SFC to 4400

Within a 10 nm ring to the west – 1500 to 4400 to the east – 2200 to 4400

12. What is wind shear and why is it hazardous to flight?

Wind shear is a change in wind speed and/or direction over a short distance. It can occur either horizontally or vertically and is most often associated with strong temperature inversions or density gradients, can cause sudden gains and losses of airspeed/altitude

13. List the four designated transponder codes and what they mean.

7700 – emergency, 7600 – radio failure, 7500 – hijack, 1200 – VFR

14. Define the following light gun signals.

Signal	Ground	Air
Steady Red	Stop	Give way to other aircraft/continue circling
Steady Green	Cleared for takeoff	Cleared to land
Flashing Red	Taxi clear of runway in use	Airport unsafe, do not land
Flashing Green	Cleared for taxi	Return for landing
Alternating Red/Green	Exercise extreme caution	Exercise extreme caution
Flashing White	Return to starting point on airport	N/A

15. True / False: An airplane stalls only at the published stall speeds

False

16. When is a Mode C transponder required?

At or above 10,000' MSL over the 48 states and DC excluding below 2,500' AGL, within 30nm of class B below 10,000' MSL, Within and above class C up to 10,000' MSL, within 10nm of designated airports excluding outside class d and below 1200' AGL, when flying across the ADIZ

17. List the cloud clearance and visibility requirements for all airspaces.

	A	B	C	D	E	G	
Cloud Clearance	IFR	CoC	1000 above 500 below 2000 horizontal (152)	152	#1000 above, 1000 below, 1 sm horizontal (111) ##152	*111	
						**Day	152
						**Night	152
						***Day	CoC
						***Night	152
Visibility	IFR	3 SM	3 SM	3 SM	#5 SM ##3 SM	*5SM	
						**Day	1 SM
						**Night	3 SM
						***Day	CoC
						***Night	3 SM

#Above 10,000' MSL

##Below 10,000' MSL

*More than 1200' AGL and Above 10,000' MSL

**Above 1200' AGL but below 10,000' MSL

***1200' AGL or less

18. What should you do when approaching another aircraft head on?

Alter course to the right

19. List all documents that must always be on board the aircraft and the pilot.

Airworthiness Cert, Registration, Radio License, Pilot's Operating Handbook, Weight and balance data, Picture ID, Medical, Appropriate Airmen Certificates

20. Define an aerobatic maneuver. Are you permitted to do one?

Intentionally exceeding 30 degrees of pitch or 60 degrees of bank. Not permitted per VFA SOP's, limited permitted in utility category on certain 172's.

21. What must you hear from ATC as a VFR pilot prior to entering a Class C airspace?

Your call sign only

22. When is a go around appropriate?

Whenever a pilot determines that there is a safety concern for their current approach

23. What is the procedure for spin recovery?

PARE – Power out, ailerons neutral, rudder opposite, elevator forward

24. Who is responsible for determining that an aircraft is in a condition for safe flight?

PIC

25. May a 50-hour inspection be overflown in hours? A 100-hour? If so, what are the requirements?

50 – yes should be completed ASA. 100 – yes, if the flight is to bring it to a location where maintenance can be performed or if it ran over time inadvertently enroute, but not more than 10 hours. Does not count to next 100 hour period.

26. When are safety belts required to be worn?

Taxi, takeoff, and landing for passengers. For required crew a shoulder harness and lap belt for taxi takeoff and landing unless it interferes with pilot duties and a lap belt only for cruise.

27. Describe the purpose of a magneto driven, dual ignition system (solid state ignition system for Tecnam)

Independent source of electrical power from the battery, will run if battery fails. Dual ignition for cleaner, more efficient burn and redundancy

28. What are the minimum day and night VFR fuel requirements for VFA? (VFA SOP)

45 minutes day, 1 hour night

29. What is the minimum runway length a VFA renter may fly into without a short field checkout? (VFA SOP)

2500 Feet

30. When is it permissible to use the built-in aircraft step to check fuel? (VFA SOP)

When on a non VFA ramp when a ladder is not available

31. What frequency does VFA operate for ground to aircraft radio communications? (VFA SOP)

123.3

32. How often must a renter fly with VFA in order to rent a VFA aircraft without an instructor? (VFA SOP)

90 days in the most complex aircraft for which they are checked out in

33. When is a SIDA badge required? (VFA SOP)

When accessing the VFA ramp

34. When is flight permitted below 1000' AGL? (VFA SOP)

Maneuvering for takeoff and landing or at an airport, simulating forced landings with an instructor (91.119 applies), when a lower altitude is appropriate for ground ref. maneuvers

35. What is the max crosswind component for solo flight for a private or above wishing to rent an aircraft? (VFA SOP)

Less than or equal to 15 knots

36. What is the required ceiling, visibility, and winds for a local solo flight if you are a private pilot or above? (VFA SOP)

5+ mile vis, winds less than or equal to 20 knots, ceiling at least 2500 feet

37. List the cold weather operations dispatch temperatures and who may fly in them. (VFA SOP)

Without Cold Weather Kit		
	Dual Flights	Student or Renter
32°F to 15°F 0°C to -9°C	Minimize reduced power and power-off operations	Minimize reduced power and power-off operations. Only with flight instructor permission and cold weather pre-brief
14°F to 5°F -10°C to -15°C	No power-off operations (Except final landing)	No Flights
Below 5°F Below -15°C	No Flights	No Flights
With Cold Weather Kit		
	Dual Flights	Student or Renter
27°F to 10°F -3°C to -12°C	Minimize reduced power and power-off operations	Minimize reduced power and power-off operations. Only with flight instructor permission and cold weather pre-brief
9°F to 0°F -13°C to -18°C	No power-off operations (Except final landing)	No Flights
Below 0°F Below -18°C	No Flights	No Flights

38. When is preheat required? Who can operate a preheater? (VFA SOP) (N/A for Tecnams)

Per SOP, if aircraft is exposed to temperatures below 25 degrees for a period of 15 minutes or longer, POH recommends below 40, and anyone trained to do so.

39. May someone enter or exit the aircraft when the engine is running? (VFA SOP)

NO