

FAA “ORAL” STUDY QUESTIONS – IMPORTANT:

- Maintenance logs: What is the difference between an annual and a 100hr inspection – how long are each valid? When can you fly over these times?
- What is the minimum safe altitude for our checkride maneuvers as defined by the ACS?
- What happens if your aircraft annual inspection expires? Is the aircraft still flyable?
- How do you calculate density altitude? Why is density altitude important?
- What is pressure altitude?
- Which way do you turn if approaching another aircraft head on?
- Can a student pilot fly into Bravo airspace?
- What would you do if you got lost? (4-Cs)
- What type of medical certificate do you have and how long is it valid?
- How do you get into a spin and more importantly perhaps how would you recover from a spin?
- What is adverse yaw and p-factor? How do you control them?
- What is the maximum baggage weight for this airplane?
- Which way to enter S-turns? What is the difference between S-Turns and Turns-Around a Point?
- What are the following values for your aircraft? V_a , V_{fe} , V_{ne} , V_{so} , V_{s1} ?
- What is maneuvering speed. Is it one fixed speed or does it vary? Why?
- What is an isogonic line? How do we use it?
- How long of a takeoff roll do we need when the density altitude is 4000 feet?
- Explain ADS-B.
- What instruments would be affected by loss of an engine suction pump?
- What does the ELT do? When must the battery be replaced/inspected? What frequency does it transmit on?
- How do you activate runway lighting at night?
- What instruments does the pitot-static system drive?
- How would you find the frequency for Flight Service when departing KPSK?
- Could you ever fly with a passenger who was drunk or injured?
- What does the rubber belt power that you can see at the front of the engine cowling?
- What color is hydraulic fluid in our aircraft?
- How does each primary aircraft control work? If you push the left rudder pedal where does the nose go? How does the trim control work? If you have fully UP trim position what is the physical position of the tab on the tail? Incidentally, is the tab on the right or left elevator? Why?

- If you go out to fly the airplane and a tire is flat. Can you legally change the tire assuming you have the new replacement tire, tools, and the knowledge of how to do it? What would be your airframe logbook entry?
- What items are you allowed to work on if you are the owner or chief operator of a FAA part 91 aircraft? (13)
- How many horsepower does the engine have in the C172 we fly? How many spark plugs? Does it have a carburetor or is it fuel injected? Why do we have carb heat control?
- What is P-factor? What is adverse yaw?
- What is the significance of 29.92 barometric pressure and a temperature of 59 degrees F to aviators?
- Is the engine/propellor direct drive or gear driven in this aircraft? How many cylinders? How many sparkplugs for each cylinder?
- What is an aircraft MEL. Does the C172 we fly have one? What is "Kinds of Operation" and how does that relate to the MEL? What does TOMATOFLAMES tell us?
- What are your requirements as a Private Pilot to remain current?
- What do aircraft FLAPS do? Are they absolutely necessary? Could you land without them?
- How many pilot hours in the logbook are required for you to fly for a charity?
- In order for you to take up a passenger, what are your responsibilities as a pilot?
- What happens if the alternator systems fails and you are drawing current from the battery without replenishing?
- Why is the red master switch split in two parts (two different switches). What does each switch do?
- What do the magnetos do? How many are there? How do they work?
- Will the aircraft engine still run if you turn the master (red switches) OFF while flying?
- If you encountered a bad mag check (more than 125 rpm drop and the engine runs rough), can you fix it? Will the aircraft be safe to fly?
- What weather resources would you use to prepare for an upcoming VFR flight?
- What is the difference between TRUE NORTH AND MAGNETIC NORTH? Are VORs TRUE or MAGNETIC? Are runways aligned to TRUE OR MAGNETIC? What are the correction lines called on a map?
- What is the difference between UTILITY AND NORMAL weight and balance categories of aircraft operation?
- What is a microburst? How do you fly in such a thing?
- For an upcoming VFR cross country flight where do you get your wind information at different altitudes? Can you trust one source for that information?

- How do you calculate the fuel required for a trip with an E6B circular slide rule? How much fuel must you land with for both day and night flights (minimum)?
- What is the difference between “Currency” and “Proficiency”?
- What are the three “Pillars” of aviation? AVIGATE, NAVIGATE, and COMMUNICATE in that order. (Gave you an answer!)
- Do you know the abc’s of Airspace? You must know these? Please study.
- Why are “Clearing Turns” required before each maneuver?
- What aircraft control controls PITCH? What does POWER control?
- What is CTAF?
- Are both the restrictions and controlling agencies for MOAs and Restricted Airspace shown on a sectional chart? If so where?
- What is a constant rate climb? What is a constant rate turn-bank? How many degrees of turn is the aircraft in when performing a constant rate turn-bank?
- Why do you need your right foot handy when doing a power on stall to a break?
- Can you read both a METAR and a TAF? What does each stand for?
- What does the term “VOR” stand for? Do they have different power levels? How far away can you receive a typical VOR such as PSK?
- What is transponder codes: Mode “A”, Mode “C” and Mode “S”? What does ADS-B add to those transponder codes? What is a Mode C/ADS-B veil? What class of airports does it surround?
- What does it mean to you when an instrument pilot reports that he is doing a “LOW APPROACH”? Do you need to be concerned when you are flying nearby or in the pattern?
- Describe “UNUSUAL ATTITUDES”. What can you as a pilot do to get out of one of those?
- Describe how you would compensate for a “CROSSWIND”.
- Describe how to do a “FORWARD SLIP”. Why would you ever want to do one?
- What does “AWOS” stand for? What does “ASOS” stand for? What does A02 mean in a Metar Report?
- What are the three types of Airmets? What are Sigmet?
- Why do we slow the aircraft to below 80 MPH prior to doing a “POWER-ON STALL”?
- What CTAF frequency do you typically use when a “CLASS D” airport tower is closed?
- What is minimally required equipment when you fly over a Class C airport above the “top” of the stated Class C control area?
- What is “TURNS AROUND A POINT” and how do you do them according to the ACS? What are your safety concerns in doing them?
- What are “S-TURNS ACROSS A ROAD (or something straight)? How do you do them? What are safety concerns?

- What is the minimum altitude you should keep when doing altitude changing maneuvers such as STALLS? What are safety concerns?
- While flying, how can you tell the direction of the wind around you?
- What is meant by a “Controlled Descent”?
- What is meant by a “DIVERSION” as referenced by the ACS? What is expected of you?
- What is an aircraft airworthiness directive (AD)? Who is responsible for making sure they are accomplished in a timely manner?
- What is an aircraft Type Certificate? What is an aircraft supplement type certificate (STC)? LOOK UP “FAA TCDS” for the C172 aircraft we fly.
- What is “PAVE”? Explain.
- You see an FAA SAFETY INSPECTOR on the ramp. He walks up, identifies himself and wants to see your pilot certificate and perhaps inspect your aircraft. What are your considerations? He then asks to see your logbooks. What are your considerations?
- How long do you have to report an incident? an accident? What are the time-limits and concerns? What is a NASA 830 form used for?
- What are Category and Class when referencing your pilot certificate.
- You just received your ASEL Pilot’s Certificate. What is required for you to fly a conventional gear airplane (tailwheel) if you have only trained in a nose wheel aircraft?
- What must you do after two years of having your pilot’s certificate in order to retain your privilege to fly?
- What medical class would you acquire to meet your pilot privilege as a Private pilot? If you lose your medical, can you continue to be a PIC?
- Is a Pilot Certificate good for life? Explain.

- **A FEW SCENARIOS:**
 1. WE are flying along and the aircraft battery seems to be discharging (ammeter goes to the left). What do we do?
 2. Both gas tanks show empty gauges. What do we do?
 3. WE are deciding whether to make a trip or not. There are lots of thunderstorms in the area but it looks like our flight might work. What should you do? What would be the best weather charts to consult?
 4. WE taxi out to take-off and find that one magneto is running rough. What now?
 5. WE smell smoke in the cabin and suspect a fire could be imminent from the engine compartment. What do we do?

6. WE have a passenger that is feeling very hot and reports not feeling so well. What do you do?
7. You have a parachutist friend who wants to jump out of your aircraft. Can you allow that?
8. You have another friend (strange friends..but I digress) that wants to drop human ashes out of your plane. Can you allow that? Considerations?
9. What do you do if you have not flown for over a year and you want to get your privileges back to carry passengers?
10. The FAA tower controller calls you up and asks you to call the tower when you land for a possible violation. He gives you the phone number. What do you do and what are your concerns?
11. A friend offers to pay you to take him or a parcel of some kind to a location several miles away. What are your considerations?
12. What is the "standard" to determine if you can "share" costs with your passenger?
13. You are starting your engine on a cold day and may have given the engine too many "prime" pumps. Fuel is dripping from the engine. When you crank the engine is suddenly backfires and someone yells "your engine is on fire!!" What do you do?