SR22T Systems Study Questions

Electrical

1. Describe ALT 1 and ALT 2 voltage, amperage, how powered
2. Why is ALT2 28.75 volts and ALT 1 only 28 volts?
3. Why is there a diode between ALT2 and ALT1 and which way does it prevent current flow?
4. Why is a diode and voltage differential both needed between ALT 2 and ALT 1?
5. Which alternator powers the most in normal operations?
6. What are the voltages and amp hours for Bat 1 and Bat 2? Where are they located?
7. If ALT 1 failed would Main Bus 1 still receive power?
8. If ALT 2 Failed would BUS 1 and Bus 2 still receive power?
9. What would the CAS message “Main Bus 2 Caution” mean?
10. What would “Main Bus 1 Caution” mean?
11. If ALT 1 failed, would the landing light work?
12. What would receive power if both ALT 1 and ALT 2 failed? How and how long?
13. If ALT 1 or ALT 2 cannot be brought back online, what items should be turned off?
	1. AC, Fan, LL, Pitot Heat, Nav & Strobe Lights, Audio Panel, Com 2

Avionics

1. What is a MISCOMP CAS message and what do you do?
2. WHAT is AHRS and what information does it provide?
3. What would happen if AHRS 1 failed?
4. What would happen if both AHRS failed – red X’s where? Would AP work?
5. What would happen if ADC 1 failed?
6. What would happen if both ADC’s failed?
7. What would happen if the PFD display failed? What important functions would be lost?

(Hint: all the 1’s and everything that takes up space on the MFD)

1. What would happen if he MFD failed? What important functions would be lost?

(Hint: all the 2’s)

1. How would you know if IAU 1 or IAU 2 failed? What would be lost in either case?

Engine

1. Describe the engine (HP, cylinders & location, fuel delivery system)
2. How is it cooled?
3. What could be the cause of a low MP in flight? Is this a possible serious issue?
4. How is the engine cooled if operating ROP and LOP?

Fuel System

1. Full fuel and tabs gallon?
2. Max fuel imbalance?
3. Will the high boost fuel pump work below 10,000’ if MP is also above 24”? What about over 10,000’ and above 24”? Why?