



Date _____

Student Name _____ Instructor _____

Aircraft Make and Model _____ Time in Aircraft _____

Initial score _____ corrected to _____

1. Define the following equipment terms:

AHRS: _____

ADC: _____

TIS: _____

Terrain: _____

2. Define the following navigation terms:

TRK: _____

DTK: _____

VNAV: _____

3. Describe the function of the following components of the G1000 Integrated Avionics System:

GRS 77: _____

GMU 74: _____

GIA 63: _____

GDU 1040: _____

GTX 33: _____

GMA 1347: _____

4. Is the aircraft required to remain stationary while the AHRS and ADC align?

5. Is there any warm-up time required for the engine instrumentation to be accurate?

6. What is the pilot action that should be taken if the MFD system self-test does not pass?

7. Where can you verify the effective dates of the Jeppesen database during the initial system start-up

8. Describe the process for entering a newly assigned transponder code.

9. Is the active frequency being used displayed to the inside or to the outside relative to the bezel of the G1000 navigation displays (GDU 1040)?

10. In what color is the active frequency displayed?

11. How do you set and change radio frequencies?

12. If the COM radio frequency toggle key is held for 2 seconds, what occurs?

13. Which key should be used on the audio panel (GMA 1347) to monitor a COM radio frequency without using it to transmit on?

14. Describe how the split COM feature works and provide at least one scenario of its use.

15. What purpose does the red button located at the bottom of the audio panel (GMA 1347) serve?

16. When the NRST softkey is pressed on the PFD, a list of the nearest airports appears, with runway length and tower/CTAF frequencies listed. How can the frequency be tuned in directly without tuning it into the COM radio?

17. Is the process to manually tune in the NAV frequency the same as it is to manually tune in a COM frequency? Is it the only way?

18. Does the G1000 system automatically attempt to identify the tuned NAV frequency? How is this visually presented?

19. Describe the process for canceling a direct-to GPS navigation.

20. Describe the procedure for entering a flight plan.

21. When using the Flight Plan function does the unit auto-sequence the waypoints and does the autopilot continuously fly the programmed route?

22. Describe some of the advantages to using the flight plan function as opposed to continuous direct-to navigation.

23. Which main type of data is presented on the default MFD display?

24. What data types can be overlaid on the moving map? Where are the controls for this data overlay located?

25. How do you access the Nearest (NRST) pages?

26. Which key should be pressed and held for 2 seconds to automatically and quickly return to the Navigation Map page?

27. What type of data can be overlaid on the Map Inset?

28. From the PFD, can the pilot enter, view and edit a flight plan? _____

29. What happens when the HDG knob is pressed? _____

30. What happens when the CRS knob is pressed? _____

31. Where is the control for the altimeter barometric pressure located? _____

32. When a lightning bolt is changed to a “+” symbol, what does this change denote? _____

33. Is the terrain awareness feature in the G1000 system certified to allow deviations from the ATC assigned altitudes?

34. In the terrain awareness feature, what do the colors red and yellow each represent? _____

35. With TIS, when does the G1000 system provide an audible alert of “Traffic”? _____

36. Describe the indication(s) you would have from an electrical failure and troubleshoot. _____

37. Where would you verify that your vacuum pump had failed? _____

38. If your pitot tube had become plugged would your backup airspeed indicator be affected or would it just be the PFD that reads erroneously and what would you do about it? _____

39. Describe the action to take if the PFD fails? _____

40. If one display fails, which mode does the system automatically go into? _____

41. If the AHARS fails what would the indication be and what would you do? _____

42. If the ADC fails what would the indication be and what would you do? _____

43. When the AHRS and/or ADC fail, what remedial action should be taken by the pilot? _____

44. In flight, during a cross country, an AHRS failure occurs (failure indicated by a red X over the attitude indicator).

NOTE: Your aircraft is equipped with an autopilot which has its own rate-based gyro as well.

Aside from the backup attitude indicator, what items can you use to ensure safe flight? _____

What are your next actions concerning the completion of the flight? (*Note that, depending on the circumstances, the following action items may occur in a different order*). _____

When the AHRS fails, what is the other piece of information that is lost besides attitude? _____

IFR Questions

1. When filling a flight plan, what suffix is used when you have a current GPS database? _____

2. When can GPS be used in lieu of DME and ADF? _____

3. What does RAIM stand for? Describe its purpose. _____

4. You are on the RNAV (GPS) 09 approach into RYY and the system displays the "RIAM UNVAIL" alert inside the Final Approach Fix. The weather is reported as 500 feet overcast with 2 statute miles of visibility. What action(s) do you take and why?

5. If the Jeppesen database is not current in the G1000, can the system still be used for IFR flight? _____

6. You are planning a flight to KNEW (Lakefront) from KRYYY. When you arrive at the aircraft, you notice that the Jeppesen database data is out of date by 3 cycles (84 days).

Can you make the flight under Instrument Flight Rules (IFR) ? _____

What enroute flight planning considerations do you have to make? _____

What destination flight planning considerations do you have to make? _____

7. What is the difference in how the HSI presents data between selecting Vectors-to Final and selecting an Initial Approach Fix during an instrument approach? _____

8. When navigating using the GPS, if an ILS, LOC, or VOR approach is selected, where is the frequency primary approach navigational aid automatically placed? _____

9. When flying an ILS approach, where do the glide-slope indicator and marker beacon annunciation appear on the PFD? _____

10. Can GPS be used to shoot a VOR? _____

11. Can GPS be used in lieu of DME when flying a DME arc associated with a VOR, LOC, or ILS approach procedure? _____

12. Where is the control for cycling between the GPS, NAV1 and NAV2 CDI selections that appear on the HSI? _____