1. Describe each of the following V speeds and provide their value at max gross weight

- Vs0
- Vs1
- Vr

- Vx (there isn't a published value for Vx in the AFM; reference the abnormal procedure for a short grass strip - how do the airspeeds given compare to Vy?)

- Vg
- Vy
- Vfe LDG
- Vfe T/O
- Vno
- Vne
- Max demonstrated crosswind
- 2. What is Va?
- 3. What factors are used in determining Va?
- 4. What effect does aircraft weight have on Va?

5. What is the glide ratio of the DA40 and how does it compare to other aircraft you have flown?

6. What are the recommended approach airspeeds and engine/prop settings?

7. What is the maximum demonstrated operating altitude for the DA40?

8. What is the maximum approved operating altitude for the DA40?

9. Describe the DA40's engine.

10. What are the engine's oil capacity and type?

11. What are the power-plant (engine) operating limitations?

12. What is the AAC CHT operating limit?

13. Is the DA40 approved for Lean of Peak EGT mixture?

14. What are the RPM and Manifold Pressure allowed ranges?

15. Describe the scenarios under which you would use the Alternate Air control.

16. What makes the flaps extend and retract?

- 17. What are the flap settings?
- 18. Can the flaps be extended if the electrical system has failed?

19. What are the hazards related to the doors in the DA40 and how can they be mitigated?

20. Describe the brake system.

21. How much usable fuel is there and what grade of fuel is used?

22. What are the limitations of the G1000 fuel gauges?

23. During preflight, without the use of the G1000 fuel gauges or fuel totalizer, how can you determine the fuel quantity of each main tank?

24. When refueling the DA40, where on the airframe do you attach the grounding wire?

25. Describe the electrical system (voltage, batteries, charging)

26. How would you recognize an alternator failure?

27. Describe the ESS Bus.

28. When and how would you use the ESS Bus switch? (The ESS Bus switch is for emergency use only.)

29. Describe the stall warning system.

30. Does the DA40 have a vacuum pump?

31. Where are the normal and alternate static sources located?

32. How will you handle inoperative equipment?

33. What are the maximum ramp, takeoff and landing weights?

34. What is the weight limit for the baggage compartment?35. Referencing the Kinds of Operation information contained in the limitations section of the AFM as well as the Garmin STC, what must be on board the aircraft for it to be airworthy? (14 CFR 91.9 requires compliance with operating limitations specified in the AFM and placards)

36. During preflight, you note the seal (wire) on the emergency switch (for the standby attitude indicator and lighting) is broken. Can you fly the aircraft, and under what conditions?

37. Describe how the following hazards apply to the DA40 and the operations where they may occur:

- Tail strike

- Runway overrun
- Landing on the nose wheel
- Wing tip damage
- 38. Are the rudder pedals adjustable, and if so, how?
- 39. Prepare a weight and balance for today's flight

40. Calculate required takeoff and landing distances at max gross weight at KOAK with no wind, pressure 29.92 and temperature of 40 C. What runway(s) would you select for takeoff and landing?

41. Calculate required takeoff and landing distances at max gross weight at O39 with no wind, pressure 29.92 and temperature of 40 C. Under these conditions would you operate at this airport?

42. How does the Hartzell Propeller STC affect landing distances?

Questionnaire corrected by CFI:

DA40 checkout completed by CFI:

Total training time - Ground:

Total training time - Flight:

CFI Notes:

Date:

Date: