Seneca III Make and Model Worksheet

V speeds:

V_{SO}		V_{YSE}	
V_{MC}		V_{FE}	
V_S		$V_{LO\ (up)}$	
V_R		$V_{LO\ (down)}$	
V_X		V_{LE}	
V_{XSE}		V_{NO}	
Vx		V_{NE}	
V_Y		$V_{A\ (gross\ weight)}$	
Total Fuel Capacity		Usable Fuel	

1. What type of engines does the Seneca III have?

2. Which engine is the critical engine?

3. What is the oil capacity and minimum oil level?

4. Why should the throttles be operated smoothly?

5. What does oil pressure do to the propeller?

6. Which lever manipulates oil pressure to the propeller?

7. What is the function of the nitrogen cylinder?

8. What is the purpose of the spring in the prop dome?

9. Define constant speed.

10. Define full feathering.

11. Will the propeller always feather?

12. What are centrifugal stop pins?

13. What is the true purpose of centrifugal stop pins?

14. What is the correct action for a propeller overspeed?

15. Describe the electrical system.

16. What are the indications of a failed alternator?

17. What will occur if an alternator produces more than 14 volts? What will be the indication of this?

18. What is the appropriate course of action if an ammeter is indicating 60 amps?

19. What is the indication of an inoperative alternator?

20. Will the engines continue to run with the alternator and battery master switches turned off?

21. Describe the vacuum system.

22. Which instruments are vacuum operated?

23. How many vacuum pumps does the aircraft have?

24. What instruments will fail if a vacuum pump fails?

25. Describe the fuel system.

26. Explain how and when to cross feed fuel.

27. Describe the landing gear system.

28. How is the gear actuated?

29. What keeps the gear in the up position?

30. What keeps the gear in the down position?

31. What indication, if any, would you have if hydraulic pressure is suddenly lost in flight?

32. What two situations will cause the landing gear horn to activate?

33. What unit will not allow the gear to be retracted on the ground?

34. What is the emergency gear extension procedure?

35. Are the brake and the landing gear hydraulics interconnected?

36. If you lose gear hydraulics, will you still have brakes?

37. What indicates that the gear is in transit and the hydraulic pump is activated?

38. What type of braking system is used by the Seneca? Where is the brake fluid serviced?

39. What type of flaps does the Seneca have?

40. Define VS_{SE}.

41. What are the drag factors on light twins?

42. Define V_{MC}.

43. Who determines V_{MC} for a particular aircraft?

44. Why is an aft CG used in determining VMC?

45. What are the factors in determining VMC?

46. Define critical engine and list the factors used to determine it.

47. What causes an aircraft to sideslip with the loss of an engine, and what action is required to correct this?

48. How much climb performance is lost when an engine fails?

49. Define absolute and single-engine service ceiling.

50. Will the propeller feather below 800 RPM? Why or why not?

51. Does the Seneca have an alternate static source? If so, how is it activated and what actions are necessary to acquire the most accurate reading?

52. What is alternate air? How is it activated?

53. What is the drawback to using alternate air?

54. What position should the fuel selectors be in for takeoff and normal flight?

55. Is the aircraft fuel injected or carbureted?

56. How many fuel pumps does the Seneca have? When are they used?

57. How many fuel sumps/drains are there and where are they located?

58. What type of heating system does the Seneca have?

59. Why does manifold pressure decrease with altitude?

60. How would you know if this aircraft is approved for known icing conditions?

61. Are flaps used for normal takeoffs?

62. Why is the manifold pressure gauge not necessarily a good indicator in determining an inoperative engine?

List the items on the following checklists:
Gear down before landing:
1.
2.
3.
4.
5.

Engine failure:
1.
2.
3.
4.
5.
6.
7.
8.
9.
10.