TTT - Aviation Oy

AIRCRAFT FLIGHT MANUAL EXAM

Student name _____ Date _____

A/C type _____ Registration _____

Instructor signature _____

Find the answers from aircraft flight manual. Questions concerning aircraft performance may be modified to correspond performance data available. If AFM does not provide answer to a question, question shall be omitted.

1. Lift-off speed in take-off _____

2. Speed for best rate of climb (Vy) _____

3. Speed for steepest angle of climb (Vx) _____

4. Speed for cruise climb _____

5. Maximum speed for flap extension /
Maximum speed with flaps fully deployed _____

6. Maximum speed for landing gear extension _____

7. Stall speed in landing configuration (V_{S0}) _____

8. Stall speed in clean configuration (V_{S1}) _____

9. Speed at threshold in landing configuration _____

10. Maneuvering speed (V_A) _____

11. Maximum permitted speed (V_{NE}) _____

12. Speed for best glide ratio (engine stopped, prop. windmilling) _____

13. The meaning of the white arc in airspeed indicator (ASI)? _____

14. Max./Min. speeds for green arc in ASI? _____

15. Engine type and power _____

16. What is true airspeed (TAS) at _____ ft altitude
with _____ % maximum continuous power (MCP)?
(A/c at MTOW, ca. 5000 ft altitude and 65% MCP) _____

17. Ref. question 16. Indicated airspeed is _____

18. What engine rpm (or rpm and manifold pressure) provides 65% MCP at 5000 ft altitude? _____

19. Ref. Q16. Fuel consumption is _____

20. Ref. Q16. Specific fuel consumption (nm/l) is _____

21. Ref. Q16. Your a/c is old and its cruise speed is 10% lower and fuel consumption 10% higher than with a new a/c. What is your specific fuel consumption (nm/l)? _____

22. Maximum fuel capacity (fuel/usable fuel) _____

23. How much fuel you may take, if every seat is occupied by a standard-weight adult? _____

24. How many adults you may take, if your fuel tanks are full _____

25. Ref. Q23. Calculate center of gravity (CG) position _____

26. Ref. Q16. What is your maximum endurance (without 45 min reserve fuel) _____

27. Describe a/c fuel sampling before flight _____

_____

28. Minimum oil quantity before flight _____

29. Maximum crosswind component for t/o and landing _____

30. Maximum weight in cargo/luggage bay _____

31. Take-off distance to 15 m / 50 ft obstacle. Pressure altitude _____ ft, OAT _____°C, wind calm, dry short grass runway _____

32. Ref. Q31. How long your runway should be, when take-off distance required (TODR) should not exceed 80% of take-off distance available (TODA)? _____

33. What is your landing distance from 15 m / 50 ft obstacle? (conditions as in Q31) _____

34. Ref. Q33. How long your runway should be, when landing distance required (LDR) may not exceed 70% of landing distance available (LDA)? _____

35. Landing speed and flaps setting to achieve shortest possible landing distance? _____

36. Aircraft belongs to _____ category

37. Aircraft is approved for operations under _____ flight rules

38. To ensure airworthiness, you should check the following documents before flight

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

39. When checking documents, you notice the following markings in a/c inspection report. What do these mean?

8. Remarks and action required	To be performed	Signature / date
1. MEL lacks requirements for cargo equipment. Contact aviation authority	B. 12.8.2011	
2. Right main gear door hinge loose. Rivets missing.	A	

_____

_____

_____

40. Landing gear is fixed / manually operable / electrical / hydraulic. If it is retractable, what is an emergency procedure for its deployment?

_____

41. Engine run-up rpm and what is maximum permissible rpm drop / difference when testing magnetos _____

42. Engine warm-up rpm _____

43. Conditions for mixture leaning during flight _____

44. Permitted flight maneuvres _____

_____

_____

45. You experience engine failure in initial climb (ca. 50 ft) Describe correct action

46. You experience engine failure in cruise flight. Describe correct action

47. You experience engine fire in cruise flight. Describe correct action