

Please do not write or mark on the reference material.

Minimum Passing Score is 80%. Each question is worth 4 points.

1. (DASH 1, page 1-2) Starter operation is limited to no more than:

- a. 15 seconds continuous use, with a 2 minute cooling period.
- b. 9 seconds continuous use, with a 1 minute cooling period.
- c. 30 seconds continuous use, with a 3 minute cooling period.

2. (DASH 1, page 1-5) What happens if the air filter becomes clogged?

- a. The pilot will need to manually activate the alternate air door.
- b. The engine will lose over 50% power. You should prepare to land immediately.
- c. Suction from the engine opens a spring-loaded door permitting air from the engine compartment to be drawn into the system.

3. (DASH 1, page 1-6) Oil temperature is measured by:

- a. a thermocouple mounted in the oil sump.
- b. an electrical probe mounted in the oil cooler.
- c. a direct reading gauge that measures expansion of a liquid in the temperature sensor.

4. (DASH 1, page 1-7) The lowest point in the fuel system is the:

- a. fuel reservoir tank.
- b. fuel selector.
- c. fuel strainer.

5. (DASH 1, page 1-7) The fuel shutoff valve is intended to be used to:

- a. prevent cross feeding in the fuel system during refueling.
- b. cut off the fuel in an emergency.
- c. stop the engine after routine flights.

6. (DASH 1, page 1-10) The T-41C has two 26 gallon fuel tanks for a total of 52 gallons on board. How much is useable in ALL flight conditions?

- a. 42
- b. 52
- c. 46

7. (DASH 1, page 1-10) The HIGH position of the auxiliary fuel pump is used: a. for engine priming, for vapor purging during hot weather operations or for alternate engine operation if the engine driven fuel pump fails.

- b. for all engine operations above 5,000 feet.
- c. to transfer fuel from the auxiliary to the main fuel tanks.

8. (DASH 1, page 1-10) The fuel quantity gauges are

- a. accurate in all flight conditions.
- b. electrically operated.
- c. pressure operated.

9. (DASH 1, page 1-10, 1-11) Electrical energy is provided by a 14 volt DC system. The battery is located:

- a. under the pilot's seat.
- b. in the engine compartment.
- c. aft of the rear cabin bulkhead.

10. (DASH 1, page 1-13) If a circuit breaker pops out during flight, you

- a. may reset it once. If it pops again, do not reset it and terminate the flight as soon as practical.
- b. should not attempt to reset it. Terminate the flight as soon as practical.
- c. can reset it as many times as necessary to complete the flight.

11. (DASH 1, page 1-14) Holding the wing flap switch in the full up or down position for extended periods may cause the flap motor to overheat and the circuit breaker to pop.

- a. True
- b. False

12. (DASH 1, page 1-15) Which gyro will continue to operate if the vacuum system fails?

- a. Heading Indicator.
- b. Turn and Slip Indicator.
- c. Attitude Indicator.

13. (DASH 1, page 1-16) The compass is unreliable

- a. when the radio is transmitting.
- b. when the landing/taxi light is on.
- c. when the aircraft is connected to a static ground.

14. (DASH 1, page 1-20) If you inadvertently lock the shoulder harness due to sudden forward movement, you can reset it:

- a. by releasing the seat lock and sliding the seat aft one notch.
- b. by moving the control lever forward to the automatic position.
- c. by moving the control lever forward to the manual position and then aft to the automatic position.

15. (DASH 1, page 2-12) Slips with flaps extended are prohibited at flap settings greater than:

- a. 10 degrees.
- b. 20 degrees.
- c. 30 degrees.

16. (DASH 1, page 3-3) Which airspeed provides the optimum gliding distance if the engine fails?

- a. The proper glide speed. (85 IAS no flaps)
- b. Best Rate V_y for a given altitude. (92 IAS)
- c. Best Angle V_x . (66 IAS)

17. (DASH 1, page 3-3) Which auxiliary fuel pump setting should you select if the engine driven fuel pump fails?

- a. HIGH, and lean for smooth operation.
- b. LOW, and lean for smooth operation.
- c. OFF

18. (DASH 1, page 3-5) What action should you take after you shut down the engine and have successfully put out an in-flight engine fire?

- a. Attempt a restart, but don't use the auxiliary fuel pump.
- b. Do not attempt a restart and pick a suitable field for a forced landing.
- c. If the smoke has cleared and you don't smell fuel, attempt a restart.

19. (DASH 1, page 3-8) In the event you must make a forced landing, you should ensure seatbelts are secure, shoulder harnesses are locked, and

- a. one cabin door is locked open.
- b. both cabin doors are locked closed.
- c. both cabin doors are locked open.

20. (DASH 1, page 5-2) The minimum recommended takeoff RPM is:

- a. 2650 RPM
- b. 2270 RPM
- c. 2200 RPM

21. (DASH 1, Appendix A, figure A1-9) How much fuel will you use to warm up, takeoff, and climb from an airport at 5,000' surface elevation to 10,000' MSL under standard conditions at a weight of 2200 lbs.?

- a. 4.0 gallons
- b. 2.7 gallons
- c. 2.6 gallons

22. (DASH 1, Appendix A, fig A1-11) Under standard conditions you depart from a sea level airport at maximum gross weight - 2,500 lbs., full fuel, no wind and cruise at 10,000 at 57% power. How far can you fly with a 1-hour fuel reserve? (Disregard distance covered in the climb.)

- a. 540 nautical miles
- b. 409 nautical miles
- c. 470 nautical miles

23. (DASH 1, Appendix A, fig A1-12) Compute the landing ground run at maximum gross weight for the following: landing Runway 17, airport elevation 5,000, and wind 200 degrees at 23 knots.

- a. 527
- b. 822
- c. 411

24. (DASH 1, Appendix A, Fig A1-6) With the aircraft loaded as follows, approximately how much fuel would have to be downloaded to remain within weight and balance limits? Four FAA standard occupants (170 lbs. each) and maximum allowable baggage in the baggage area.

Item	Weight	Arm	Moment
Licensed Empty Weight	1458	37.2	54289.20
Pilot	0	36.0	0.00
Co-Pilot	0	36.0	0.00
Fuel	46 Gal	276	47.8
Oil	8 Quarts	15	-21.3
Rear Seats	0	70.0	0.00
Baggage	0	95.0	0.00
	Total	1749	38.4
			67169.20

- a. None
- b. 9 gallons
- c. 15 gallons

25. (DASH 1, Appendix A, figure A1-7) What is the maximum allowable crosswind for a dual flight during a full flap approach?

- a. 26 Knots
- b. 15 Knots
- c. 10 Knots