

SCOTT AFB AERO CLUB / FLIGHT TRAINING CENTER
PIPER PA-28R-201 CHEROKEE ARROW III WRITTEN EXAM
1 March 2011

1. N2672Q is equipped with a normally aspirated, direct drive, air-cooled, horizontally opposed, fuel injected, four cylinder engine. The maximum rated horsepower is:
 - a. 180 rated BHP at 2700 RPM
 - b. 160 rated BHP at 2700 RPM
 - c. 150 rated BHP at 2700 RPM
 - d. 200 rated BHP at 2700 RPM

2. The engine is started with the mixture control in the full rich position.
 - a. True
 - b. False

3. The 12 volt 25 Amp-Hour battery is located under the rear seat.
 - a. True
 - b. False

4. The fuel capacity is:
 - a. 60 gallons total, 57.5 usable
 - b. 70 gallons total, 67.5 usable
 - c. 77 gallons total, 72.0 usable

5. Each wing fuel tanks' capacity is:
 - a. 38.5 gallons total, 17 gallons usable when filled to the bottom of filler neck
 - b. 35 gallons total, 22.5 gallons usable when filled to the bottom of filler neck
 - c. 36 gallons usable, 25 gallons usable when filled to the bottom of filler neck

6. Maximum take off and landing weights are:
 - a. Takeoff 2750 lbs., Landing 2650 lbs.
 - b. Takeoff 2650 lbs., Landing 2650 lbs.
 - c. Takeoff 2550 lbs., Landing 2550 lbs.
 - d. Takeoff 2750 lbs., Landing 2750 lbs.

7. Panel light dimmer switch must be off to obtain gear lights full intensity during daytime flying.
 - a. True
 - b. False

8. The PA-28R-201 is equipped with an airspeed power sensing system which extends the landing gear even though the pilot may not have selected gear down at approximately: (Permanently disabled on N2672Q)
 - a. 90 kts with power off
 - b. 95 kts with power off
 - c. 103 kts with power off

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9. Proper ground check and indications of magneto checks
- a. Conducted at 2000 RPM, High RPM
 - b. Drop off on either magneto should not exceed 175 RPM and operation on one magneto should not exceed 10 seconds.
 - c. Difference between the two magnetos should not exceed 50 RPM
 - d. All of the Above
10. Warm up the engine at 1400 to 1500 RPM, Takeoff can be made as soon as the ground check is made and the throttle can be opened fully without a reduction in oil pressure, backfiring or skipping.
- a. True
 - b. False
11. As a normal category aircraft, which of the following maneuvers may be accomplished?
- a. Chandelles
 - b. Steep Turns
 - c. Lazy Eights
 - d. All of the Above
12. Takeoff distance over a 50 foot obstacle to a paved, level, dry runway with 25° flaps, 2400 lbs, PA of 1000 feet, Temperature of 10°C, and no head wind is calculated at approximately:
- a. 1300 feet
 - b. 1460 feet
 - c. 1490 feet
13. True airspeed (TAS) for the PA28R-201 for cruising at a pressure altitude of 5000 feet, 0° C, 2750 pounds, 75% power with mixture leaned to 100° rich of peak is _____ and fuel flow is _____ GPH.
- a. 150 kts @ 11.5
 - b. 142 kts @ 11.5
 - c. 137 kts @ 11.5
14. The red gear warning light and horn operate simultaneously when:
- a. MP is reduced to approximately 14 inHg or below and gear selector is not down
 - b. When backup gear extend system has lowered the gear and the gear selector switch is not in the down position and power is reduced to approximately 14 inHg MP
 - c. When on the ground when the master switch is "ON" and the gear selector switch is in the up position and the throttles are in the retarded position.
 - d. All of the above.
15. Expected fuel burn at maximum gross weight, gear and flaps up, mixture leaned to 100°F rich of peak EGT, 75% power at 6000 feet pressure altitude is approximately:
- a. 11.6 GPH
 - b. 10.4 GPH
 - c. 9.1 GPH

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16. The maximum oil capacity of the engine sump on the Lycoming O-360 series engine is _____ quarts. The minimum safe quantity of operate the engine is listed as _____ quarts by the manufacturer. The Aero Club does not operate the engine with less than 6 quarts.

- a. 7 and 4
- b. 7 and 5
- c. 8 and 2
- d. 8 and 6

17. Proper inflation of the gear struts, at empty weight plus full fuel is indicated by:

- a. Main 2.5 ± 0.25 in, Nose 2.50 ± 0.25 in
- b. Main 2.5 ± 0.50 in, Nose 2.75 ± 0.25 in
- c. Main 2.5 ± 0.25 in, Nose 2.75 ± 0.25 in

18. The PA-28R-201 is certified in both Normal and Utility categories.

- a. True
- b. False

19. The maximum authorized weight in the baggage compartment is:

- a. Normal category 120 lbs
- b. Normal category 100 lbs
- c. Normal category 150 lbs
- d. Normal category 200 lbs

20. When conducting the pre-flight inspection, the pilot should be aware that the static ports are located:

- a. On the left side of the fuselage, just behind the cowling.
- b. Inside the pitot head.
- c. On both sides of the aft fuselage
- d. Adjacent to the stall warning vane.

21. When should the electric fuel pump be in operation?

- a. Take off
- b. Landing
- c. Switching fuel tanks
- d. All of the Above

22. When moving the fuel selector control, the pilot should be aware:

- a. A locking button must be depressed to turn the fuel selector OFF
- b. The fuel pump must be turned on prior to switching between fuel tanks.
- c. The fuel system should normally be operated in the "Both" position
- d. Answers "a" and "b" are correct

This is the end of the open book portion of the written test. The closed book questions are on the back of the answer sheet cover emergency procedures. Proceed to that portion of the test at your instructor's direction.

When you have completed the test, have your instructor grade the test, and review any questions that you answered incorrectly. Also be sure both you and your instructor sign your test answer sheet, place it in your folder, and update your record in the Dispatch program.

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V_{NE}	_____	
V_{NO}	_____	
V_A	_____	2750 lbs
	_____	1865 lbs
V_{FE}	_____	
V_{LE}	_____	Extension/Extended
V_{LO}	_____	Retraction
V_R	_____	Normal Takeoff
V_X	_____	Flaps Up
V_X	_____	25° Flaps
V_Y	_____	Flaps Up
V_Y	_____	25° Flaps
	_____	Enroute Climb
	_____	Max Demonstrated Crosswind

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**EMERGENCY QUESTIONS - CLOSED
BOOK**

Engine Fire During Start

1. _____
2. _____
3. _____
4. _____
5. _____

Engine Fire in Flight

1. _____
2. _____
3. _____
4. _____
5. _____

Engine Failure in Flight (Cruise)

1. _____
2. _____
3. _____
4. _____
5. _____

Emergency Approach and Landing

1. _____
2. _____
3. _____
4. _____
5. _____

Emergency Landing Gear Extension

1. _____
2. _____
3. _____
4. _____
5. _____

Open Door in Flight

1. _____
2. _____
3. _____
4. _____
5. _____