

**Wings of Carolina Flying Club
Cessna 152 Written Test**

Pilot _____

Score _____

Instructor _____

Date _____

Instructor: Please note the final score (subtract 3.125 points from 100 for each wrong answer) on the checkout form and file the quiz in the Pilot Records folder.

Pilot: Information required to correctly answer the following questions may be found in the C-152 POH, the WCFC SOPs, and club checklists, documents and instructional practices. Select the most correct answer for each question.

1. Which engine is installed in the Cessna 152?
 - a. Lycoming O-235-N2C.
 - b. Lycoming O-235-L2C
 - c. Lycoming OI-235-N2C.
 - d. Lycoming OI-235-L2C.
2. What is the rated horsepower of the engine?
 - a. 98 BHP at 2550 RPM.
 - b. 100 BHP at 2550 RPM.
 - c. 108 BHP at 2550 RPM.
 - d. 110 BHP at 2550 RPM.
3. What is the acceptable oil quantity for the C-152?
 - a. Four to six gallons.
 - b. Four to six pints.
 - c. Four to six quarts.
 - d. Four to six liters
4. The normal type of oil used in the C-152 is:
 - a. High quality automotive multi-grade high detergent type.
 - b. SAE rated SE (Severe Environment) type multi-viscosity.
 - c. Aviation grade ashless dispersant (AD) of appropriate viscosity.
 - d. Aviation grade "mineral" engine oil.
5. Which of the following is the proper fuel for the C-152 (with no STC)?
 - a. 100.
 - b. 100LL.
 - c. Automotive low-lead.
 - d. Both a and b.
6. The maximum certified weight(s) for the C-152s are:
 - a. Ramp 1675; takeoff 1670; landing 1670.
 - b. Ramp 1680; takeoff 1670; landing 1670.
 - c. Ramp 1680; takeoff 1675; landing 1675.
 - d. Ramp 1675; takeoff 1675; landing 1670.
7. The maximum weight allowed in the baggage areas is:
 - a. Baggage area one 100 pounds.
 - b. Baggage area two 60 pounds.
 - c. Total baggage area (one and two) 120 pounds.
 - d. Total baggage area (one and two) 160 pounds.

8. The white arc on the airspeed indicator defines:
 - a. V_{no} to V_{s1} .
 - b. V_{ne} to V_{fe} .
 - c. V_{fe} to V_{so} .
 - d. V_{le} to V_{lo} .
9. The green arc on the airspeed indicator defines:
 - a. V_{no} to V_{s1} .
 - b. V_{ne} to V_{fe} .
 - c. V_{fe} to V_{so} .
 - d. V_{le} to V_{lo} .
10. What is the maximum recommended turbulent air penetration speed for the C-152?
 - a. All weights 104 KIAS.
 - b. All weights 104 KCAS.
 - c. 1670 lbs, 104 KCAS; 1500 lbs, 98 KCAS; 1350 lbs. 93 KCAS
 - d. 1670 lbs, 104 KIAS; 1500 lbs, 98 KIAS; 1350 lbs. 93 KIAS.
11. What is the recommended airspeed for steep turns?
 - a. 65 knots.
 - b. 85 knots.
 - c. 95 knots.
 - d. 105 knots.
12. What is the total/useable fuel capacity for the WCFC C-152s?
 - a. 26 gallons, 24 gallons useable.
 - b. 26 gallons, 24.5 gallons useable.
 - c. 39 gallons, 38 gallons useable.
 - d. 39 gallons, 37.5 gallons useable.
13. After starting the engine, oil pressure:
 - a. Will register immediately.
 - b. Should begin to register within 90 seconds.
 - c. Must register within 30 seconds in the summer and 60 seconds in the winter.
 - d. Must register within 60 seconds in the summer and 90 seconds in the winter.
14. The maximum demonstrated crosswind velocity for the C-152 is:
 - a. 12 knots.
 - b. 14 knots.
 - c. 15 knots.
 - d. 17 knots.
15. When should you lean the fuel mixture?
 - a. During all operations at any altitude when operating at 75% or less power.
 - b. Only when absolutely necessary it may foul the plugs.
 - c. Only when established in cruise flight above 5000 feet.
 - d. Only at high altitude airports.
16. Which of the following approach and landing speed combinations is correct?
 - a. Normal flaps 20; airspeed 65 KIAS.
 - b. Short Field flaps 20; airspeed 54 KIAS.
 - c. Soft Field flaps 30; airspeed 75 KIAS.
 - d. Normal, short field, and soft field techniques are all correct.

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17. Which set of procedures are the proper procedures for a balked landing (go around)?
- | | |
|---|---|
| <p>a. Throttle ----- full
 Carburetor heat ----- off
 Flaps ----- retract to 20°
 Speed ----- 55 KIAS
 Flaps ----- Retract slowly</p> <p>c. Throttle ----- full
 Carburetor heat ----- off
 Speed ----- 55 KIAS
 Flaps ----- retract to 10°
 Flaps ----- Retract slowly</p> | <p>b. Carburetor heat ----- off
 Throttle ----- full
 Flaps ----- lower to 20°
 Speed ----- 55 KIAS
 Flaps ----- Retract slowly</p> <p>d. Throttle ----- full
 Flaps ----- lower to 20°
 Carburetor heat ----- off
 Speed ----- 55 KIAS
 Flaps ----- Retract slowly</p> |
|---|---|

18. What are the stall speeds for a C-152 under the following conditions?
 Forward center of gravity
 Flaps up
 0° and 60° of bank

- a. 36 KIAS and 51 KIAS.
- b. 40 KIAS and 57 KIAS.
- c. 35 KIAS and 49 KIAS.
- d. 48 KIAS and 68 KIAS.

19. Given the following data, is the C-152 aircraft within legal weight and moment limits? (Show your work)

Item	Weight (lbs)	Moment (in-lbs)
Basic Empty Weight 4640B	1168.4.	35,578.0
Fuel Full tanks	_____	_____
Pilot	190.0	_____
Passenger	150.0	_____
Baggage Area I	15.0	_____
Baggage Area 2	4.0	_____
TOTALS	_____	_____

- a. Weight within limits, moment within limits.
- b. Weight within limits; moment outside of limits.
- c. Weight outside limits; moment within limits.
- d. Weight outside limits; moment outside limits.

20. Given the following data, is the C-152 aircraft within legal weight and moment limits? (Show your work)

Item	Weight (lbs)	Moment (in-lbs)
Basic Empty Weight 89433	1,124.1.	33,794.6
Fuel Full tanks	_____	_____
Pilot	200.0	_____
Passenger	170.0	_____
Baggage Area I	25.0	_____
Baggage Area 2	10.0	_____
TOTALS	_____	_____

- a. Weight within limits, moment within limits.
- b. Weight within limits; moment outside of limits.
- c. Weight outside limits; moment within limits.
- d. Weight outside limits; moment outside limits.

28. In a C-152, the ammeter and low voltage warning light may indicate electrical power system problems. If the ammeter shows an excessively high rate of charge that continues for more than a few minutes after engine start, you should:
- Turn off the alternator switch, reduce the electrical load, and land as soon as practical.
 - Ignore it. Breakers have been built into the system for shorts. It usually indicates items such as the landing light are on.
 - Attempt to recycle the over-voltage relay by turning off the radios, and then recycling the master switch.
 - Turn the master switch to off and land immediately.
29. The C-152 electrical system is a:
- 12 volt, direct current system with a 24 volt battery.
 - 12 volt, direct current system with a 12 volt battery.
 - 16 volt direct current system with a 24 volt battery.
 - 28 volt direct current system with a 24 volt battery.
30. During the before takeoff magneto check, which of these statements is true?
- Set engine RPM at 1700.
 - Magneto drop should be a maximum of 125 RPM.
 - Magneto drop difference should be no more than 50 RPM.
 - All of the statements above are true.
31. What frequency and transponder codes are used for emergencies?
- 121.5 and 7700.
 - 125.1 and 7700.
 - 121.5 and 7600.
 - 125.1 and 7700.
32. What would indicate carburetor ice?
- A sudden increase in oil pressure.
 - An immediate complete loss of engine power.
 - A gradual loss of RPM.
 - A gradual increase in oil pressure.