

References: Cessna 172R, S, and N Pilot's Operating Handbooks and Information Manuals with applicable STC supplements, and RAFA SOP, April 2008.

CESSNA 172S and 172R

Use the C-172R (180hp) and C-172S Information Manuals for this first section (12 questions)

1. As described in Section 3, a failure of the engine driven fuel pump will be evidenced by a sudden reduction in the fuel flow indication. Immediately following will be:
 - a. An increase in RPM
 - b. An increase in fuel pressure
 - c. A loss of engine power
 - d. Normal engine operation

2. Regarding the C-172R and S models, what provides the source of vacuum for the aircraft's attitude and heading indicators?
 - a. An electrically driven pump
 - b. A vacuum tap off the induction
 - c. A single engine driven pump
 - d. 2-engine driven pumps

3. Assuming a 34 gallon usable fuel load in the C-172S, take a look at Section 5 of the Information Manual (Cruise Performance chart) and determine the total (incl reserves) endurance (hours) one would have under the following conditions: 2550 gross wt, 4000 ft press alt, std temp, 61% BHP.
 - a. 4 hours
 - b. 3 hours
 - c. 2.3 hours
 - d. 6 hours

4. When starting a warm engine, what procedure in the "Starting Engine" checklist should you omit?
 - a. Mixture to Idle cut off
 - b. Priming procedure
 - c. Throttle Open ¼ inch
 - d. Ignition switch to Start

5. Soft or rough field takeoffs are performed with a flap setting of:
 - a. Whatever feels right
 - b. 20°
 - c. 0°
 - d. 10°

CESSNA 172N**Use the C-172N Pilot's Operating Handbook for this section below (9 questions)**

13. In performing a Short Field Takeoff, what is the total takeoff distance required to clear a 50-foot obstacle at maximum gross weight, flaps up, paved level dry runway, proper leaning, pressure altitude of 4000 ft, temperature 30°C, and a 18 knot headwind?

- a. 1868 ft
- b. 600 / 1350 ft
- c. 1144 / 2101 ft
- d. 865 / 1525 ft

Calculation: Total distance

14. As shown in the Normal Procedures section, the final approach airspeeds (KIAS) with flaps up and down for a Normal Landing are:

- a. 60-70 / 55-65
- b. 55-65 / 60-70
- c. 50-60 / 65-70
- d. 65-75 / 60-70

15. FAR Part 91.205 dictates the minimum equipment and instruments required for flight. Cessna will add to these minimum equipment requirements as shown in the POH Sect. 6, WT/Bal.-Equipment List. So, does Cessna require the Ammeter to be operable for flight?

- a. No, you could fly VFR if you wanted to...
- b. Yes; however, if you placarded that puppy, then you could fly
- c. No, the gauge is not necessary
- d. Yes; you cannot fly with an inoperable ammeter

16. The indicated zero-bank stall speeds at max gross weight and forward CG with full flaps and without flaps are:

- a. 44 KIAS / 33 KIAS
- b. 55 KIAS / 35 KIAS
- c. 41 KIAS / 47 KIAS
- d. 40 KIAS / 30 KIAS

17. As defined in Section 7, the independent hydraulic reservoirs/master cylinders for the brakes on a C-172 are located:

- a. on the forward firewall
- b. in the tail section
- c. adjacent to the aircraft's battery
- d. behind the pilot rudder/brake pedals

18. What is maneuvering speed (V_A) at 2300 pounds and 1600 pounds, respectively?
(Limitation Section 2)

- a. 97 & 80 KIAS
- b. 96 & 80 KIAS
- c. 65 KIAS with aft CG
- d. 97 KIAS for both weights

19. What is the best glide speed for the C-172N model with flaps up?

- a. 75 KIAS
- b. 60 KIAS & 65 KIAS
- c. 80 MPH & 85 MPH
- d. 65 KIAS

20. Determine the weight and balance given the following information:

<u>Item</u>	<u>Weight</u>	<u>Arm</u>	<u>Moment</u>
Basic Aircraft	1474		59791.76
Fuel (40 gal)	_____	47.9	_____
Pilot & passenger	410	<u>37.0</u>	_____
Rear passenger	205	<u>73.0</u>	_____

CG = _____

Totals: _____

- a. Within weight limits, within CG
- b. Over weight limits, outside fwd CG
- c. Over weight limits, within CG
- d. Within weight limits, outside fwd CG

21. In the event of a go-around or balked landing, the first action for the pilot to take is to:
(Normal Procedures Section 4)

- a. Retract flaps to 20 deg
- b. Announce a “go-around”
- c. Push throttle Full Open
- d. Push carburetor heat knob In

Common to more than one model (5 questions)

22. Look at the SOP, Section 4. When returning to RAFA, during fueling, the ground wire will be connected to:

- a. The fuel cap
- b. Main landing gear tire
- c. Any exhaust pipe
- d. One of the wing tie-down points

23. What are the maximum horsepower ratings for the C-172R/S, C-172N, respectively?

- a. 180, 160
- b. 185, 165,
- c. 160 for each model
- d. 140, 130

24. Check out the later model “Landing Distance” tables. How does operations on a dry grass runway affect the landing distance?

- a. There is no change at all
- b. Distances increase significantly
- c. Distances decrease slightly
- d. Distances decrease if using MIL-H-5606 brake fluid

25. In the event of a cabin fire, the emergency procedure first mandates the Master Switch-OFF. The next step would be to: (look at the later model information manuals!)

- a. Open all windows and vent
- b. Vents/Cabin Air/Heat – Closed
- c. Fuel shut off valve-OFF
- d. Call ATC