

References: Cessna 172R, S, I, 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. What is the Utility category maximum takeoff weight?
 - a. 2550 lbs
 - b. 2150 lbs
 - c. 2200 lbs
 - d. 2558 lbs

2. What are the V_y and V_x airspeeds at sea level?
 - a. 74 / 62 KIAS
 - b. 76 / 59 KIAS
 - c. 100 / 65 KIAS
 - d. 67 / 55 KIAS

3. If both fuel tanks are filled to bottom of the filler neck for the S and R models, what will be the total reduced fuel capacity?
 - a. 65 gallons
 - b. 35 gallons
 - c. 53 gallons
 - d. 40 gallons

4. 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

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

6. The indicated speed, V_{s_0} , is the stall velocity in the “dirty” landing configuration and is found on the airspeed indicator at the:
 - a. Bottom of white arc and 40 KIAS
 - b. Bottom of green arc and 40 KIAS
 - c. Bottom of green arc and 48 KIAS
 - d. Bottom of white arc and 55 KIAS

7. One chart in Section 5 of the C172 S and R (180hp) Information Manual depicts “Short Field Takeoff Distance at 2550 Pounds”. This takeoff distance information is based on lifting off at 51 KIAS and maintaining what airspeed at 50 feet?:
- a. 59 KIAS
 - b. 51 KIAS
 - c. 62 KIAS
 - d. 56 KIAS
8. The Emergency Procedures, Section 3, shows “**Bold Faced**” items in several of the checklist areas to identify initial action items to be memorized. With this, the first action a pilot must take during an engine fire in flight is:
- a. Mixture – Idle Cut Off
 - b. Master Switch - Off
 - c. Declare an Emergency
 - d. Forced Landing - Execute
9. 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
10. 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
11. As described in Section 7 of the Information Manual, the 28 volt, 60 amp electrical system consists of a split primary bus, each connected to an avionics bus via:
- a. A magneto
 - b. A single avionics master switch
 - c. Dual avionics master switches
 - d. An avionics relay/thing-a-ma-gig
12. 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

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

13. 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
14. 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
15. 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
16. 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
17. What is the best glide speed for the C-172N model?
- a. 75 KIAS
 - b. 60 KIAS & 65 KIAS
 - c. 80 MPH & 85 MPH
 - d. 65 KIAS
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. 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	37.0	
Rear passenger	205	73.0	

CG =

Totals:

- a. Within weight limits, within CG c. Over weight limits, within CG
b. Over weight limits, outside fwd CG d. Within weight limits, outside fwd CG
20. 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 c. adjacent to the aircraft's battery
b. in the tail section d. behind the pilot rudder/brake pedals
21. 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 c. 1144 / 2101 ft
b. 600 / 1350 ft d. 865 / 1525 ft

CESSNA 172I, N35553

Use the C-172I Pilot's Operating Handbook for this section below (7 questions)

22. The minimum oil level for the C-172I, described in Section IV, is:

- a. 6 qts c. 5 qts
b. 4 qts d. 10 qts

23. As shown in Section 1, a short-field (maximum performance) takeoff is performed at:

- a. 0° flaps, climb @ 68 mph, maintain until clear of obstacle c. full flaps, rotate @ 47 mph
b. 10° flaps, rotate @ 75 mph d. not applicable

24. Maximum flap-extended speed (V_{FE}) is:

- a. 100 MPH
- b. 123 MPH
- c. 82 MPH
- d. 111 MPH

25. As shown in the “Before Landing” checklist, the final approach airspeeds (MPH) with flaps up and down are:

- a. 50-60 / 65-70
- b. 60-70 / 55-65
- c. 55-65 / 60-70
- d. 70-80 / 65-75

26. Using the performance charts for the range profile, determine the range in SM at 2300 lbs, standard conditions, with full fuel, using 68% power at 5000 feet Alt., no reserve.

- a. 485 SM
- b. 600 SM
- c. 122 SM
- d. 625 SM

27. Shown in Section II, the best rate of climb (V_Y) and the best angle of climb (V_X) speeds @ sea level are:

- a. 90 / 75 MPH
- b. 82 / 68 MPH
- c. 80 / 70 MPH
- d. 85 / 73 MPH

28. What is the best glide speed for the C-172I?

- a. 80 MPH
- b. 75 MPH
- c. 85 MPH
- d. 95 MPH

Common to more than one model (5 questions)

29. 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

30. Look at the SOP, Section 4. When returning to RAFA, the C-172I is to be fueled to the top while all other C-172s should be filled to the bottom of the filler neck. 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
31. 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
32. What are the maximum horsepower ratings for the C-172R/S, C-172N, and C-172I, respectively?
- a. 180, 160, 150
 - b. 185, 165, 152.3
 - c. 160 for each model
 - d. 150, 140, 130
33. The C-172I model maximum demonstrated crosswind component is 15 MPH; for later model C-172s, that maximum crosswind component is:
- a. 21 kts
 - b. 11 kts
 - c. 15 kts
 - d. no limits