

## Cessna 172 Exam

References: Cessna 172R, S, and N Pilot's Operating Handbooks (POHs) with applicable STC supplements and RAFA Standard Operating Procedures (SOP). Four points each question.

### **CESSNA 172R/S**

**Use the Cessna 172R (180 hp) or Cessna 172S POH for questions 1 to 12.**

1. A failure of the engine driven fuel pump will be evidenced by a sudden reduction in the fuel flow indication, immediately followed will by: (Cessna 172R/S POH, SECTION 3, EMERGENCY PROCEDURES)
  - a. A loss of engine power
  - b. An increase in fuel pressure
  - c. An increase in RPM
  - d. Normal engine operation
  
2. What is the maximum horsepower rating for the Cessna 172R/S and at what engine rpm? (Cessna 172R/S POH, SECTION 1, GENERAL and SECTION 2, LIMITATIONS)
  - a. 180 hp / 2750 rpm
  - b. 160 hp / 2700 rpm
  - c. 200 hp / 2500 rpm
  - d. 110 hp / 2550 rpm
  
3. What is the total endurance (no reserve) under the following conditions: 2550 gross wt, 4000 ft press alt, std temp, 61% BHP, and 34-gallon usable fuel? (Cessna 172R/S POH, SECTION 5, PERFORMANCE, CRUISE PERFORMANCE)
  - a. 6 hours
  - b. 3 hours
  - c. 2.3 hours
  - d. 4 hours
  
4. When starting a hot engine, what procedure in the "Starting Engine" checklist should you omit? (See Cessna 172R/S POH, SECTION 4, NORMAL PROCEDURES)
  - a. Mixture to Idle cut off
  - b. Throttle Open 1/4 inch
  - c. Priming procedure
  - d. Ignition switch to Start
  
5. Soft or rough field takeoffs are performed with a flap setting of: (Cessna 172R/S POH, SECTION 4, NORMAL PROCEDURES)
  - a. Whatever feels right
  - b. 20°
  - c. 0°
  - d. 10°
  
6. What is the Utility Category maximum takeoff weight? (Cessna 172R/S POH, SECTION 2, LIMITATIONS)
  - a. 2550 lbs
  - b. 2150 lbs
  - c. 2200 lbs
  - d. 2558 lbs

## Cessna 172 Exam

7. Short field takeoff procedure at 2550 pounds is based on lifting-off at 51 KIAS. What is the correct airspeed at 50 feet? (Cessna 172R/S POH, SECTION 5, PERFORMANCE, SHORT FIELD TAKEOFF DISTANCE AT 2550 POUNDS)

- a. 54 KIAS
- b. 50 KIAS
- c. 62 KIAS
- d. 56 KIAS

8. What are the  $V_Y$  and  $V_X$  airspeeds at sea level? (Cessna 172R/S POH, SECTION 5, PERFORMANCE)

- a. 74 / 62 KIAS
- b. 76 / 59 KIAS
- c. 100 / 65 KIAS
- d. 67 / 55 KIAS

9. **"Bold Faced"** items in several of the emergency checklists identify initial action items to be memorized. The first action a pilot must take during an engine fire in flight is: (Cessna 172R/S POH, SECTION 3, EMERGENCY PROCEDURES)

- a. Mixture -- IDLE CUT OFF
- b. Master Switch -- OFF
- c. Declare an Emergency
- d. Forced Landing -- EXECUTE

10. If both fuel tanks are filled to bottom of the filler neck, what will be the total reduced fuel load? (Cessna 172R/S POH, SECTION 2, LIMITATIONS and SECTION 7, AIRPLANE & SYSTEM DESCRIPTION)

- a. 65 gallons
- b. 35 gallons
- c. 53 gallons
- d. 40 gallons

11. Velocity stall 0 ( $V_{s0}$ ) is the stall speed in the "dirty" landing configuration and 0° bank. What speed is  $V_{s0}$  and how is it indicated on the airspeed indicator? (Cessna 172R/S POH, SECTION 5, PERFORMANCE)

- a. 40 KIAS and bottom of white arc
- b. 40 KIAS and bottom of green arc
- c. 48 KIAS and bottom of green arc
- d. 55 KIAS and bottom of white arc

12. The 28-volt, 60-amp electrical system consists of a split primary bus, each connected to an avionics bus via: (Cessna 172R/S POH, SECTION 7)

- a. A magneto
- b. A single avionics master switch
- c. Dual avionics master switches
- d. An avionics relay/thing-a-ma-gig

### Cessna 172N (160 HP)

**Use the Cessna 172N POH for questions 13 to 21.**

13. 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 an 18-knot headwind? (Cessna 172N POH, SECTION 5, PERFORMANCE, TAKEOFF DISTANCE MAXIMUM WEIGHT 2300 LBS)

- a. 1868 ft
- b. 2102 ft
- c. 2335 ft
- d. 1300 ft

## Cessna 172 Exam

14. The final approach airspeeds for a Normal Landing both with flaps up and flaps down are: (Cessna 172N POH, SECTION 4, NORMAL PROCEDURES)

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

15. FAR Part 91.205 dictates the minimum equipment and instruments required for flight by all aircraft. Cessna adds to these minimum equipment requirements with a comprehensive equipment list. Is a properly functioning ammeter required for flight? (Cessna 172N POH, SECTION 6, WEIGHT & BALANCE/EQUIPMENT LIST)

- a. No; however, you can only fly VFR
- b. Yes; however, you can still fly if the ammeter is placarded INOPERATIVE
- c. No; the ammeter is not required
- d. Yes; you cannot fly with an inoperable ammeter

16. The indicated stall speeds at 0° bank, max gross weight, and forward CG with full flaps and with zero flaps are: (Cessna 172N POH, SECTION 5, PERFORMANCE)

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

17. The independent hydraulic reservoirs/master cylinders for the brakes are located: (Cessna 172N POH, SECTION 7, AIRPLANE & SYSTEMS DESCRIPTIONS)

- 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 are maneuvering speed ( $V_A$ ) at 2300 pounds and 1600 pounds, respectively? (Cessna 172N POH, SECTION 2, LIMITATIONS)

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

19. What is the best glide speed with flaps up? (Cessna 172N POH, SECTION 3, EMERGENCY PROCEDURES)

a. 74 KIAS	c. 68 KIAS
b. 60 KIAS	d. 65 KIAS

## Cessna 172 Exam

20. Determine the weight and balance given the following information: (Cessna 172N POH, SECTION 6, WEIGHT & BALANCE/EQUIPMENT LIST)

<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	_____
Total Weight	_____		Total Moment _____
		CG	_____

- 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: (Cessna 172N POH, SECTION 4, NORMAL PROCEDURES)

- 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 for questions 22 to 25.**

22. When fueling an airplane, the grounding wire will be connected to: (SOP, SECTION 4, FLIGHT OPERATIONS)

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

23. When taxiing under power on the ramp, the nose wheel should: (SOP, SECTION 4, FLIGHT OPERATIONS)

- a. remain on the yellow taxi line for all taxiing and through shutdown.
- b. remain on the yellow taxi line for all taxiing until turning to align with parking spot.
- c. remain near the yellow taxi line since the taxi line just is a suggestion.
- d. go wherever the pilot thinks best since the yellow taxi line is not relevant.

24. How does operation on a dry grass runway affect the landing distance? (Cessna 172N/R/S POH, SECTION 5, PERFORMANCE)

- 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 Master Switch - OFF. The next step is to: (Cessna 172N/R/S POH, SECTION 3, EMERGENCY PROCEDURES)

- a. Windows and vents -- OPEN
- b. Fuel shutoff valve --OFF
- c. Vents/Cabin Air/Heat -- CLOSED
- d. Call ATC