

Elmendorf Aero Club Aircraft Test

Cessna-172

For the following questions, you will need to refer to the Pilots Information Manual for the C-172S and the C-17R where noted.

USE ANSWER SHEET "AF FORM 1584C EXAM RECORD AT END OF TEST"

1. The engines are a Lycoming IO-360 and rated at 160 horsepower for N949AF and _____ horsepower for N453SP/35408?
2. Which fuel capacities are correct for the C172R and C172S Models?
 - a. 68 total and 62 usable
 - b. 43 total and 40 usable
 - c. 56 total and 53 usable
3. Recommended fuel grade is 100LL and the color is?
 - a. Green
 - b. Blue
 - c. Red
4. (True/False) - Alternate fuel grade is 100 and Red in color.
5. (True/False) - The grade of oil for summer and winter is 40 weight.
6. True/False) -Minimum operating oil level is 6.5 quarts.
7. (True/False) – When the fuel tanks are $\frac{1}{4}$ full or less, prolonged uncoordinated flight such as slips or skids can uncover the fuel tank outlets.
8. (True/False) -If the engine air induction filter should become completely blocked, on our three C172's, the spring loaded alternate air door will open automatically.
9. The low voltage warning annunciator is incorporated in the annunciator panel and activates when the voltage falls below _____ volts.
 - a. 24.5
 - b. 23.0
 - c. 20.0

10. Any time a fuel tank quantity drops below _____ gallons, and remains below that level for more than 10 seconds, the LOW FUEL message will flash on and then remain on.
- 5 gals
 - 3.5 gals.
 - 2 gals
11. The initial procedures for a “Go-Around” are:
- Carb heat hot, flaps to 20 degrees, full throttle
 - Full throttle, flaps to 20 degrees
 - Full throttle, flaps to 20 degrees, carb heat cold
12. (True/False) – If a total loss of oil pressure is accompanied by a rise in oil temperature, there is a good reason to suspect an engine failure is imminent.
13. (True/False) – The recommended starter duty cycle is to crank the starter for 10 seconds followed by a 20 second cool down period. This cycle can be repeated two additional times, followed by a ten minute cool down period before resuming cranking.

Use the C172S POH for the following questions.

(For answers 14 & 15) Compute the takeoff distance at maximum gross weight with the following conditions:

Sea level
 15 degrees C.
 50' obstacle
 Tailwind – 6 kts

14. What is the ground Roll?
15. To clear 50' obstacle?

(For answers 16, 17 & 18) What are the time, fuel, and distance to climb from a P.A. of 1000 to a P.A. of 7000 feet?

16. Time?
17. Fuel?
18. Distance?

(For answers 19, 20, 21, 22 and 23) What are the power setting, fuel consumption, true airspeed, range, and endurance for the following conditions?

70% Power, 4,000' PA, 53 gals usable fuel, full fuel with 45 minute reserve, Standard Temperature.

- 19. RPM?
- 20. GPH?
- 21. TAS?
- 22. Range nm?
- 23. Endurance hrs?
- 24. Compute the landing distance (ground roll) for the following conditions?

PA 1000'
15 degrees C.
Zero Wind

- 25. What is the maximum fuel allowed for this Weight/Balance?

Empty Weight.....1715.6 lbs.
Empty Moment.....68520
Maximum Takeoff Weight.....2550 lbs.
Pilot & Front Seat Passenger.....400 lbs.
Rear Passenger.....200 lbs.
Baggage Area "1".....75 lbs.
Usable Fuel..... 53 gals.

USAF AERO CLUB KNOWLEDGE EXAM RECORD

Name: _____

Date Taken: _____

Type Exam: Standardization Instrument Make & Model _____ Recurrency
 Initial Solo Solo Cross Country Other: _____

Raw Score (%): _____

Date Corrected to 100%: _____

I certify all items were thoroughly debriefed and all questions answered

Pilot's Signature

Instructor's Signature

Pilot's Signature					Instructor's Signature								
	T	F	(A)	(B)	(C)	(D)		T	F	(A)	(B)	(C)	(D)
1.	(A)	(B)	(C)	(D)				26.	(A)	(B)	(C)	(D)	
2.	(A)	(B)	(C)	(D)				27.	(A)	(B)	(C)	(D)	
3.	(A)	(B)	(C)	(D)				28.	(A)	(B)	(C)	(D)	
4.	(A)	(B)	(C)	(D)				29.	(A)	(B)	(C)	(D)	
5.	(A)	(B)	(C)	(D)				30.	(A)	(B)	(C)	(D)	
6.	(A)	(B)	(C)	(D)				31.	(A)	(B)	(C)	(D)	
7.	(A)	(B)	(C)	(D)				32.	(A)	(B)	(C)	(D)	
8.	(A)	(B)	(C)	(D)				33.	(A)	(B)	(C)	(D)	
9.	(A)	(B)	(C)	(D)				34.	(A)	(B)	(C)	(D)	
10.	(A)	(B)	(C)	(D)				35.	(A)	(B)	(C)	(D)	
11.	(A)	(B)	(C)	(D)				36.	(A)	(B)	(C)	(D)	
12.	(A)	(B)	(C)	(D)				37.	(A)	(B)	(C)	(D)	
13.	(A)	(B)	(C)	(D)				38.	(A)	(B)	(C)	(D)	
14.	(A)	(B)	(C)	(D)				39.	(A)	(B)	(C)	(D)	
15.	(A)	(B)	(C)	(D)				40.	(A)	(B)	(C)	(D)	
16.	(A)	(B)	(C)	(D)				41.	(A)	(B)	(C)	(D)	
17.	(A)	(B)	(C)	(D)				42.	(A)	(B)	(C)	(D)	
18.	(A)	(B)	(C)	(D)				43.	(A)	(B)	(C)	(D)	
19.	(A)	(B)	(C)	(D)				44.	(A)	(B)	(C)	(D)	
20.	(A)	(B)	(C)	(D)				45.	(A)	(B)	(C)	(D)	
21.	(A)	(B)	(C)	(D)				46.	(A)	(B)	(C)	(D)	
22.	(A)	(B)	(C)	(D)				47.	(A)	(B)	(C)	(D)	
23.	(A)	(B)	(C)	(D)				48.	(A)	(B)	(C)	(D)	
24.	(A)	(B)	(C)	(D)				49.	(A)	(B)	(C)	(D)	
25.	(A)	(B)	(C)	(D)				50.	(A)	(B)	(C)	(D)	

CLOSED BOOK EXAM

Write the Emergency Action Procedures for the following:

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. _____

Fill in all the applicable blanks.

1. V_A _____ Lbs
2. V_A _____ Lbs
3. V_A _____ Lbs
4. V_{FE} _____ (First Extension Increment)
5. V_{LO} _____ Retraction (Retractable Gear Aircraft Only)
6. V_{LO} _____ Extension (Retractable Gear Aircraft Only)
7. Best Glide Speed @ Maximum Gross Weight _____