

# Elmendorf Aero Club Aircraft Test

## Cessna-172XP

For the following questions, you will need to refer to the Pilots Information Manual for the Hawk XP C-172K and the FAA approved Airplane Flight Manual Supplement.

### USE ANSWER SHEET "AF FORM 1584C EXAM RECORD ON LAST PAGE"

1. The engine is a Lycoming IO-360 and rated at \_\_\_\_\_ horsepower for takeoff and \_\_\_\_\_ horsepower for maximum continuous power?
2. Engine Operating Limits for takeoff power are \_\_\_\_ minutes @ Full Throttle and \_\_\_\_\_ PRM.
3. Which fuel capacities are correct for the C172K?
  - a. 68 total and 62 usable
  - b. 43 total and 40 usable
  - c. 52 total and 49 usable
4. Recommended fuel grade is 100LL and the color is?
  - a. Green
  - b. Blue
  - c. Red
5. (True/False) - Alternate fuel grade is 100 and Red in color.
6. (True/False) - The grade of oil for summer and winter is 40 weight.
7. (True/False) –Do not operate on less than 6.0 quarts.
8. (True/False) -If the engine air induction filter should become completely blocked you must pull the alternate air knob - ON.
9. (True/False) - If the over voltage warning light remains on, this indicates the alternator is not operating and the battery is supplying all electrical power.

10. (True/False) - The fuel shutoff valve is located above the fuel primer valve.
11. The initial procedures for a "Go-Around" is:
  - a. Carb heat hot, flaps to 20 degrees, full throttle
  - b. Full throttle, 2800 RPM, flaps to 20 degrees
  - c. Full throttle, flaps to 20 degrees, carb heat cold
12. (True/False) - To avoid flooding , turn the auxiliary fuel pump switch off promptly when the fuel flow reaches 10 gal/hr during preparation for engine start.
13. (True/False) – If prolonged cranking is necessary; allow the starter motor to cool at frequent intervals since excessive heat may damage the armature.

**Use the C172K 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 – 4 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 S.L to a P.A. of 5000 feet?

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

(For answers 19, 20, 21, 22, 23 and 24) What are the power setting, fuel consumption, true airspeed, range, and endurance for the following conditions?

70% Power, 6,000' PA, 53 gals usable fuel, full fuel with 45 minute reserve, Standard Temperature.

19. RPM & MP?
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.....1627.8 lbs.  
Empty Moment.....59942.88  
Maximum Takeoff Weight.....2550 lbs.  
Pilot & Front Seat Passenger.....400 lbs.  
Rear Passenger.....200 lbs.  
Baggage Area "1".....75 lbs.  
Usable Fuel.....49 gals.

# USAF AERO CLUB KNOWLEDGE EXAM RECORD

Name: \_\_\_\_\_

Date Taken: \_\_\_\_\_

Type Exam:  Standardization     Instrument     Make & Model 172XP     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						
	T	F	(C)	(D)		T	F	(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 \_\_\_\_\_