



## Piper Apache Aircraft Exam

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

Instructor: \_\_\_\_\_ CFI #: \_\_\_\_\_ Exp: \_\_\_\_\_

Aircraft Make: PIPER Model: PA-23-160

Aircraft Engines: LYCOMING Model: O-320A

### LIMITATIONS:

Vr	_____	Max Headwind Component @ AMS	_____
Vso	_____	Max Crosswind Component @AMS	_____
Vs1	_____	Max Demonstrated Crosswind Component	_____
Vfe	_____	Oil Capacity	_____
Va	_____ @ 4800 lbs (Max Gross Weight)	Minimum Oil	_____
Vle	_____ retraction _____	Total Usable Fuel	_____
Vno	_____	Minimum Fuel Grade	_____
Vne	_____	Fuel Color	_____
Vmc	_____	Zero Fuel Weight	_____
Vx	_____	Vxse _____	Maximum Baggage _____
Vy	_____	Vyse _____	

**SYSTEMS:**

**1. Explain the gear indicator lights.**

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**2. When does the red gear light in the landing gear control knob flash?**

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**3. The landing gear and flaps are \_\_\_\_\_ actuated.**

**4. Where is the hydraulic pump located? Is there a backup pump/system?**

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**5. What prevents gear retraction on the ground?**

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**6. The Apache is equipped with a \_\_\_\_\_ speed \_\_\_\_\_ pitch propeller.**

**7. What is the governor and how does it work?**

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**8. Explain the fuel system and how to crossfeed.**

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# PERFORMANCE:

## 1. COMPUTE WEIGHT AND BALANCE:

Pilot weighs 205 lbs and co-pilot weighs 210 lbs, there are 2 passengers in the rear seats that weigh 105 lbs and 85 lbs. You plan to depart with full fuel and 120 lbs of baggage. (Use actual aircraft empty weight, arm, and moment).

Item	Weight	Arm	Moment
Empty Weight			
Oil (9 qt. per side)			
Fuel			
Pilot & Front Pax			
Rear Seat Pax			
Baggage			
<b>Total</b>			
Without Fuel			
<b>Zero Fuel Weight</b>			

IS THIS AIRCRAFT WITHIN WEIGHT AND BALANCE LIMITATIONS? \_\_\_\_\_

## 2. TAKE-OFF AND LANDING DISTANCE:

Given the following conditions:      *Pressure Altitude: 2500 ft.*      *Weight: \_\_\_\_\_*  
    *Current temperature: 10 C*      *Wind: 5 kt headwind*

What will be the normal ground roll distance on take-off with no flaps? \_\_\_\_\_

How much runway will be left at Milton (2R4) \_\_\_\_\_

What will be the landing distance over a 50 ft. obstacle? \_\_\_\_\_

## 3. CROSSWIND COMPONENT:

You are departing runway 36, the wind is 290 at 18 kts. Have you exceeded the manufacturers demonstrated crosswind component? \_\_\_\_\_

4. According to the power setting table, what combinations of RPM and manifold pressure for 65% power at 9000 pressure altitude? Which would you select and why?

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\_\_\_\_\_

**NORMAL OPERATION:**

1. How many strokes of fuel prime are recommended for starting? \_\_\_\_\_

2. Why are full feathering checks on the ground not recommended?  
\_\_\_\_\_  
\_\_\_\_\_

3. What is the recommended take-off power setting after gear retraction?  
\_\_\_\_\_

4. What is the recommended cruise climb speed? \_\_\_\_\_

5. What RPM is recommended for maximum cruise performance? \_\_\_\_\_

6. Describe the leaning procedure as outlined in the EDM 760 Airplane Flight manual Supplement. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

7. What is the recommended approach speed/power setting for a normal landing?  
\_\_\_\_\_  
\_\_\_\_\_

8. What keeps the prop from feathering while the engine is shut down?  
\_\_\_\_\_  
\_\_\_\_\_

9. The heater switch should be turned off \_\_\_\_\_ minutes before stopping the engines and shutting off the master switch.

10. When the navigation lights are on, the gear position lights are \_\_\_\_\_.

# EMERGENCY PROCEDURES

1. What is the procedure for an engine power loss on take-off while on the ground?

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2. What is the procedure for an engine power loss on take-off while climbing out?

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3. What is the emergency gear extension procedure?

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4. What is significant about the left engine power loss?

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5. In the event the cabin door opens, what is the recommended procedure for closing it?

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**GARMIN GTN 650**

- 1. How do you change between NAV/COMM and how do you change the frequencies for the NAV/COMM?**

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- 2. What is the process for utilizing the ID function of the NAV?**

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- 3. How do you use RAIM prediction?**

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- 4. How do you switch the CDI between VLOC/GPS?**

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- 5. How do you input an Instrument Procedure?**

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- 6. How do you go Direct To an Airport?**

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**FOR INSTRUCTOR USE ONLY**

**PILOT MEETS CHECKOUT REQUIRMENTS?** \_\_\_\_\_

**CFI NAME THAT CONDUCTED CHECKOUT** \_\_\_\_\_

**CFI CERTIFICATE # AND EXPIRATION** \_\_\_\_\_

**PILOT TOTAL HOURS** \_\_\_\_\_ **(MINIMUM 300)**

**MULTI-ENGINE HOURS** \_\_\_\_\_ **(MINIMUM 50)**

**PA-23-235 HOURS** \_\_\_\_\_ **(MINIMUM 10 WITHOUT AMS  
INSTRUCTOR, 5 DUAL IN LIEU)**

**PILOT MEETS CURRENT INSURANCE  
POLICY MINIMUMS FOR RENTAL?** \_\_\_\_\_