

PINNACLE AVIATION ACADEMY

PIPER PA44-180 CHECKOUT - WRITTEN

PILOT: _____

INSTRUCTOR: _____

DATE: _____

OBJECTIVE: With the use of the Pilot's Information Manual, the pilot will be able to identify information relating to the safe operation of the **Piper PA44-180 Seminole**. Each question is followed by a reference number that indicates the page in the PIM where information on the question may be found.

AIRCRAFT LIMITATIONS

1. What is the Never Exceed Speed (V_{ne})? (2-1) _____
2. What is the Maneuvering Speed (V_a) at 2,700 lbs.? (2-1) _____
3. What is the Maximum Flap Extended Speed (V_{fe})? (2-2) _____
4. What is the Maximum Landing Gear Extended Speed (V_{le})? (2-2) _____
5. What is the Maximum Landing Gear Retract Speed ($V_{lo-retract}$)? (2-2) _____
6. What is the Maximum Landing Gear Extension ($V_{lo-extension}$)? (2-2) _____
7. What is Air Minimum Control Speed (V_{mca})? (2-2) _____
8. What is the Maximum Ramp Weight? (2-5) _____
9. What is the Maximum Takeoff Weight? (2-5) _____
10. What is the Maximum Landing Weight? (2-5) _____
11. What is the Maximum Weight in the baggage compartment? (2-5) _____
12. What is the Maximum Usable Fuel Quantity? (1-4) _____

EMERGENCY PROCEDURES

1. What is the Single Engine Best Angle of Climb Speed (V_{xse})? (3-2) _____
2. What is the Single Engine Best Rate of Climb Speed (V_{yse})? (3-2) _____
3. What is the Emergency Descent Speed? (Same as V_{lo}) (3-3) _____
4. What is the Single Engine Final Approach Speed? (3-7) _____
5. What is the Single Engine Rate of Climb with One Engine Inop-Gear Up at Sea Level, 20 degrees C and a weight of 3,800 lbs? (5-24) _____

EMERGENCY PROCEDURES (CON'T)

6. What is the Procedure for Engine Failure During the Takeoff Roll? (3-3) _____

7. What is the Procedure for Engine Failure After Liftoff and in Flight? (3-5) _____

8. What is the Procedure for Engine Fire on the Ground? (3-11) _____

9. What is the Procedure for Engine Fire in Flight? (3-11) _____

10. What is the Maximum Speed for a Gear Down Emergency Descent? (2-2) _____

11. What is the Procedure for Complete Loss of Electrical Power? (3-17) _____

12. What is the Procedure for Engine Securing after failure in flight? (3-2) _____

13. What is the Procedure Landing Gear Manual Extension? (3-15) _____

NORMAL PROCEDURES

1. What is the maximum demonstrated crosswind component? (4-2) _____
2. What is the normal takeoff rotation speed? (4-13) _____
3. What is the takeoff 50-foot speed? (4-14) _____
4. What is the best two-engine angle of climb speed (V_x)? (4-2) _____
5. What is the best two-engine rate of climb speed (V_y)? (4-2) _____
6. What is the cruise climb speed? (4-15) _____
7. What is the initial climb speed after a maximum performance takeoff? (4-14) _____
8. What is the flaps up approach speed? (4-16) _____
9. What is the flaps down approach speed? (4-16) _____
10. **Pinnacle Aviation policy states that the leanest fuel setting for cruise flight shall not exceed 50 degrees rich of peak EGT!** What is the leanest cruise flight mixture setting permitted by Pinnacle Aviation policy? (N/A) _____
11. **Pinnacle Aviation policy states that the maximum allowable cylinder head temperature shall not exceed 450 degrees!** What is the maximum cylinder head temperature permitted by Pinnacle Aviation policy? (N/A) _____

PERFORMANCE

1. What is the Short Field Take-Off Distance for +30 degrees C, pressure Altitude of 4,000 ft., 3,500 lb weight, 0 wind and a 50 foot obstacle with a paved level dry runway using short field technique? (5-19) _____
2. What is the Short Field Accelerate- Stop Distance with a decision speed of 70 KIAS at +20 degrees C, pressure altitude of 326 ft, 3,500 LBS, 5 KTS headwind? (Attachment to PIM) _____
3. What is the Short Field Accelerate- Stop Distance with a decision speed of 70 KIAS at +30 degrees C, pressure altitude of 5,000 ft, gross weight, Wind Calm? (Attachment to PIM) _____
4. What is the Single Engine Climb Rate at +20 degrees C, pressure altitude of 4,000 ft and 3,400 LBS weight? (5-24) _____
5. What is the 65% Cruise M.P. Setting for 2,300 RPM at 4,000 ft at Standard Temperature? (5-26) _____
6. What is the Standard Temperature Range and Endurance for Performance Cruise (Associated Condition per Chart) at 65% Power and 8,500 ft? (5-29) _____

WEIGHT AND BALANCE

1. Using the sample loading chart (basic empty weight of 2,615 Lbs and empty moment of 224,577 in-lbs on page (6-11,13,14) determine the takeoff weight and moment with 80 gal. fuel, a pilot weight of 200 lbs., a front passenger weight of 170 lbs., rear passenger weights of 170 lbs and 130 lbs and baggage weight in Aft Baggage of 50 lbs.

a. What is the Takeoff Weight? _____

b. What is the Moment? _____

c. Is this configuration within the CG/Moment envelope? _____

2. Using the sample loading chart (basic empty weight of 2,615 Lbs and empty moment of 224,577 in-lbs on page (6-11,13,14) determine the takeoff weight and moment with 80 gal. fuel, a pilot weight of 200 lbs., a front passenger weight of 170 lbs., no rear passengers and baggage weight in back seats of 30 lbs.

a. What is the Takeoff Weight? _____

b. What is the Moment? _____

c. Is this configuration within the CG/Moment envelope? _____