

# **PINNACLE AVIATION ACADEMY**

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**CESSNA 172S G1000 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 **Cessna 172 S**. A reference number that indicates the page in the PIM where information on the question may be found follows each question.

## **AIRCRAFT LIMITATIONS**

1. What is the Never Exceed Speed (Vne)? (2-4)

2. What is the Maneuvering Speed (Va) at 2,550 lbs.? (2-4)

3. What is the Maximum Flap Extended Speed (Vfe)? (2-4)

10 Degrees \_\_\_\_\_

10 TO 30 Degrees \_\_\_\_\_

4. What is the Maximum Takeoff Weight? (2-7)

5. What is the Maximum Weight in the baggage compartments? (2-14)    A \_\_\_\_\_

B \_\_\_\_\_

C \_\_\_\_\_

6. What is the Maximum Usable fuel quantity? (2-13)

## **EMERGENCY PROCEDURES**

1. What is the airspeed for maximum glide at 2,550 lbs.? (3-3) \_\_\_\_\_

2. What is the procedure for engine failure immediately after takeoff? (3-4) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3. What is the procedure for a loss of alternator output (Ammeter shows discharge)? (3-11) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## **NORMAL PROCEDURES**

1. What is the 0 degree flap Normal Climb speed after a normal takeoff? (4-15) \_\_\_\_\_
2. What is the Enroute Climb Power Setting? (4-25) \_\_\_\_\_
3. What is the Best Power leaning procedure? (Degrees rich of peak) (4-35) \_\_\_\_\_
5. What is the flaps down final approach speed for a normal landing? (4-23) \_\_\_\_\_
6. What is the initial balked landing (go around) speed? (4-23) \_\_\_\_\_
7. What is the starter duty cycle limit? (4-28) \_\_\_\_\_
8. What is the maximum and minimum oil limits (Dipstick)? (8-14) \_\_\_\_\_

## **PERFORMANCE**

1. What is the stall speed (KIAS) with the most fwd. CG, 3100 lbs, flaps up, and a 45 deg bank? (5-13)  
\_\_\_\_\_
2. What is the takeoff distance to clear a 50 ft. obstacle using max perform? Procedures, at gross weight, 6,000 ft. elevation and 30 degrees C? (5-15) \_\_\_\_\_
3. What is the expected fuel consumption at a cruise altitude of 10,000 ft. with 69% power set at 2,300 rpm and 20 deg. above standard temp? (5-29) \_\_\_\_\_
4. What is the expected maximum range with 87.0 gallons usable fuel and a 45 min reserve at 75% power, 10,000 ft., zero wind and std. temp. ? (5-33) (Note: 1 hr reserve is minimum per Pinnacle SOP)  
\_\_\_\_\_
5. What is the landing distance over a 50 ft. obstacle using max performance procedures, at 2,950 Lbs, 6,000 ft. Elevation and 30 degrees C? (5-36) \_\_\_\_\_

## **WEIGHT AND BALANCE**

1. Using the sample loading chart with (1642 Lbs, Mom 62,600 in-lbs) as empty conditions; determine the takeoff weight and moment with full standard tanks, a pilot weight of 200 lbs., a front passenger weight of 130 lbs., rear passenger weights of 180 lbs and 130 lbs and baggage weight in Area A of 50 lbs, and baggage weight in Area B of 24 lbs. and Area C of 10 lbs. (6-11 to 6-16)
  - a. What is the maximum Ramp Weight limitation? \_\_\_\_\_
  - b. What is your Weight and Moment? \_\_\_\_\_
  - c. Is this configuration within the CG/Moment envelope? \_\_\_\_\_
  - d. If not, what is the maximum departure fuel that you can order? \_\_\_\_\_

## GARMIN G1000

1. AHRS stands for:

- Altitude, Heading & Reference System
- Airspeed, Heading & Reference System
- Attitude, Heading & Reference System

2. Define **LRU**: \_\_\_\_\_

3. Define **PFD**: \_\_\_\_\_

4. Define **MFD**: \_\_\_\_\_

5. The MFD displays information such as your horizon, airspeed and altimeter

- True
- False

6. Active COM/NAV Frequencies are highlighted in green

- True
- False

7. The G1000 Transponder provides mode function:

- A**
- C**
- S**

8. Your trend lines indicate the airspeed, heading or altitude you will be in:

- 5 seconds**
- 6 seconds**
- 7 seconds**

9. Red chevrons appear on your PFD if:

- The PFD has failed**
- The MFD has failed**
- The aircraft is in an unusual attitude**

10. By holding down the COM toggle switch, what frequency will appear? \_\_\_\_\_

11. The G1000 automatically adjusts the backlighting for the display units?

- True**
- False**

12. How many aircraft can you observe on your TIS system at one time?

- 4**
- 8**
- 10**

13. The Pilot must switch the transponder to ALT prior to tack-off?

- True**
- False**

14. You can manually adjust speeds for Vr, Vy, Vx and Glide using the following soft key?

- CDI**
- TMR/REF**
- PFD**

15. How is the Pilot notified that the NAV frequency has been identified by the G1000 unit? \_\_\_\_\_

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16. You can rely on TIS for traffic separation

- True**
- False**

17. In order for TIS to be available, your aircraft must be within miles for an FAA mode S terminal radar site

- 40**
- 55**
- 75**

18. TIS availability may be subject to which of the following errors (circle all that apply)

- Line of sight**
- Obstructions**
- Proximity to the Ground**
- Certain maneuvers**

19. In reversionary mode, the critical aircraft information can be combined on either the MFR or the PFD

- True**
- False**

20. The vacuum gauge is always displayed on the Primary page of the MFD?

- True**
- False**

21. Optional Equipment on the G1000 includes, but is not limited to the following?

- XM Radio**
- Electronic Checklist**
- XM Lightning**
- All of the above**

22. Where do you locate the Time for the aircraft? \_\_\_\_\_

23. Where do you locate the Hobbs Time for the aircraft? \_\_\_\_\_

24. Within what radius is lighting data provided by the STRMSCP key?

- 150 NM**
- 200 NM**
- 250 NM**

25. Fuel calculation, including gallons used quantity remaining is automatically linked to the fuel quantity indicator:

- True**
- False**

26. The terrain proximity range for the G1000 provides terrain warning within what ranges:

- 50, 100 and 1000ft**
- 100, 1000 and >1000ft**
- 200, 500 and 1000ft**

27. The G1000 only provides terrain, not obstacle data

- True**
- False**

28. RAIM prediction is available within of specified arrival data and time:

- +/- 10 minutes**
- +/- 15 minutes**
- +/- 20 minutes**

29. Using the nearest function, you can locate up to ` airports within NM of your current position \_\_\_\_\_

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30. The G1000 can store up to flight plans?

- 59**
- 79**
- 99**

31. You can only make changes to your active flight plan on the MFD?

- True**
- False**

32. Annunciators appear on the to notify pilot immediate action is required \_\_\_\_\_

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33. Annunciators requiring immediate action by the Pilot include (circle all that apply): **Pitch Trim**

- Low Oil Pressure**
- Low Valts**
- Low VAccum**

34. Message advisories appear as a result of a G1000 system failure only?

- True**
- False**

35. A failure of the Garmin Magnetometer will cause a failure in witch of the following instruments?

- Altimeter**
- Heading Indicator**
- Airspeed Indicator**