

RFC Dallas, Inc.

AIRCRAFT QUESTIONNAIRE

Version 1.1 7/8/2004

Name: _____ Date: _____
Aircraft: Cessna Cardinal RG Model: CE-177RG
Registration Number: N7592V

Answer the following questions by using the information contained in this aircraft's Pilot's Operating Handbook, the current Weight and Balance supplement, placards affixed to the aircraft, the RFC CE177 Checklist, and the FARS/AIM. After being reviewed by a Club Checkout Instructor, this questionnaire must be submitted to the RFC Dallas Inc. Safety Officer before solo flights may be conducted.

1. What is the maximum allowable gross weight for this aircraft? _____ lbs.
2. What is the current licensed empty weight (basic empty weight) and moment arm for this aircraft? _____ lbs., _____ inches.
3. How much additional weight can be carried with maximum fuel and oil on board? _____ lbs.
4. At maximum gross weight, what is the forward C.G. limit? _____ inches.
5. At maximum gross weight, what is the rearward C.G. limit? _____ inches.
6. To minimize the loss of oil through the breather, for flights of less than 3 hours, begin your flight with _____ quarts. For flights greater than 3 hours, begin your flight with _____ quarts. Never operate the engine with fewer than _____ quarts.
7. What viscosity of oil (ashless dispersant) does RFC use in this aircraft?
SAE _____
8. What is the total usable fuel capacity? _____ gals.
9. What is the minimum grade of aviation fuel approved for use in this aircraft?
Octane _____ / Color _____
10. During the preflight inspection, how many fuel drains must be checked?

11. During the preflight inspection, how can the quantity of fuel indicated on the fuel gauges be verified?

12. What position(s) must the fuel selector be placed in, to ensure proper fueling?

13. The auxiliary fuel pump is used for:

- a. _____
- b. _____
- c. _____

14. What position should the fuel selector be placed in before starting the engine?

15. What would be the approximate fuel consumption when using 60% power at an altitude of 6000 ft., at maximum gross weight, and standard temperature?
_____ GPH.

16. When using high power settings, a full-rich mixture setting should be used for operations below _____ ft. MSL.

17. What is the rated BHP of the engine installed in this aircraft at maximum allowable RPM? _____ BHP _____ RPM

18. During the preflight inspection, how do you verify that the pitot heat is functioning?

19. Is it permissible to fly this aircraft into forecasted icing conditions? _____

20. What are the following speeds for this aircraft in KIAS? (Gross weight, sea level)

- | | |
|-----------|-----------------------------------|
| Vne _____ | Maximum Glide _____ |
| Vno _____ | Maximum window open _____ |
| Va _____ | Maximum demonstrated X-wind _____ |
| Vfe _____ | Balked landing _____ |
| Vx _____ | |
| Vy _____ | |
| Vlo _____ | |
| Vsi _____ | |
| Vso _____ | |
| Vle _____ | |

21. During certification of this aircraft, the maximum demonstrated crosswind component was _____ kts.
22. In all configurations, the stall warning horn activates between _____ and _____ knots above the stall.
23. Where is the ELT located? _____
24. Can the ELT be activated from the pilot's seat? _____
25. What is the power off stall speed with flaps up, maximum gross weight, most forward C.G., and a 45° angle of bank? _____ KIAS?
26. What are the first three steps in the emergency procedure for an in-flight engine fire?
- a. _____
 - b. _____
 - c. _____
27. What steps would you take to recover from an inadvertent spin?
- a. _____
 - b. _____
 - c. _____
 - d. _____
 - e. _____
28. During a severe build-up of ice on the aircraft's control surfaces (greater than 1" accumulation), how many degrees of wing flap should be used during approach and landing? _____ degrees
29. What is the approximate short field landing distance be under the following conditions: Obstacle: 50 ft., Flaps: 30°, Power: Off, Headwind: 9kts., Temperature: +30° C, Pressure Altitude: 2,000 ft.? _____ ft.
30. The normal flap setting for take-off is _____ degrees. An alternate flap setting for takeoff is _____ degrees.
31. A normal climb is performed using _____ inches of MAP, _____ RPM, and the fuel mixture leaned to _____ GPH.
32. When transitioning to a balked landing from a normal landing configuration, the flaps should initially be retracted to _____ degrees.

33. When configuring the aircraft for landing, should carburetor heat be used?
(Yes/No) _____ Why? _____

34. Cowl flaps should be in the open position during the following operations:

- a. _____
- b. _____
- c. _____
- d. _____

35. During the pre-takeoff engine run-up, the power should be set to _____ RPM. As each magneto is individually selected, the maximum allowable drop is _____ RPM. The difference between the left and right magneto RPM drop must not exceed _____ RPM. May the pilot initiate a takeoff if these values are slightly exceeded? (Yes/No) _____

36. When are the landing gear retracted after takeoff?

- a. _____
- b. _____

37. What is the indication that the landing gear has been fully retracted?

38. What are the indications that the landing gear has been fully extended?

- a. _____
- b. _____
- c. _____

39. On which of the landing gear is a safety (squat) switch located that prevents the gear from being inadvertently retracted while the aircraft is on the ground?
(Select One) Left: _____ Right: _____ Nose gear: _____

40. The landing gear handle is which of the following?

- a. An electric switch that activates the gear drive motor
- b. A valve which directs hydraulic pressure to the landing gear actuators
- c. A mechanical linkage to the landing gear drive clutch

41. Which of the following methods holds the main landing gear in the retracted position?

- a. Mechanically
- b. Electrically
- c. Hydraulically

42. Which of the following methods holds the nose landing gear in the retracted position?

- a. Mechanically
- b. Electrically
- c. Hydraulically

43. In the event of an electrical system failure, the landing gear may be extending which of the following alternative methods?

- a. Turning the hand crank 50 times counter-clockwise
- b. Pressurizing the hydraulic system using a hand pump
- c. Using the spring actuated gear release handle

44. Given the following aircraft loading criteria:

Pilot.	180 lbs
Copilot	220 lbs
Rear Pax 1	110 lbs
Rear Pax 2	80 lbs
Fuel (Full)	60 gals
Oil	6 quarts

The Gross Weight is _____ lbs.

The C.G. is _____ inches aft of datum.

Is the aircraft loaded within allowable weight limits? _____

Is the aircraft loaded within allowable C.G. limits? _____

45. Given the loading scenario from the previous question, adding 50 lbs. of weight in the baggage compartment will cause:

- a. The aircraft's rearward C.G. limit to be exceeded
- b. The aircraft's forward C.G. limit to be exceeded.
- c. The aircraft's maximum gross weight to be exceeded.
- d. The aircraft to be within weight and C.G. limits.

46. According to FAR 91.7, who is responsible for determining whether the aircraft is in condition for safe flight? _____

REVIEWED BY: _____
A/C check out completed

DATE: _____