RFC Dallas, Inc.

AIRCRAFT QUESTIONNAIRE (03/11/2024)
"A Safe Pilot Knows His Equipment"

NAME: _____ Date: _____

Aircraft: Bonanza Registration Number: **N3077U** Serial Number: **CE-1085**

The purpose of this questionnaire is to aid the pilot in their understanding of the airplane and its specific systems and procedures. No attempt has been made to cover in depth all the information contained in the POH/AFM but this questionnaire will provide a review of the basic information a pilot should know prior to being certified for solo flight by a Club Checkout Instructor. This questionnaire along with the ground and flight instruction you will receive by a Club Instructor and your continued review of the POH/AFM will enable you to maintain a high degree of knowledge and safety regarding this specific airplane.

Using all available manuals and documentation, complete each question by providing the most appropriate response. Upon completion, contact a Club Checkout Instructor to schedule a review of your responses. Following this review, please place a signed copy (with corrected responses) in the red folder in the club lockbox and notify the Club Safety and Training Officer.

1) What is the Maximum Ramp Weight for this aircraft? _____.

2) What is the Maximum Gross Take-Off Weight (MGTOW) for this aircraft? _____.

3) The Empty Weight of this aircraft is: _____(lbs). Empty Weight CG is: _____.

4) The Forward C.G. limit at gross weight is _____. Aft C.G. limit is _____.

5) This aircraft is certified in the _____ category.

6) What type of fuel does this engine require? _____.

7) Each "Main" fuel tank holds _____ total gallons, _____ gallons usable.

    a. If a tank is filled to the bottom of the tab, it has _____ usable gallons. If a tank is filled to the slot on the tab, it has _____ usable gallons.

8) This aircraft has _____ fuel drains.

9) Where is the low point drain? _____.

10) Minimum fuel in each Main tank for takeoff is _____ gallons.

11) The auxiliary fuel pump is (mechanical / electrical) and is used for:
    a. _____
    b. _____
    c. _____

12) The engine horsepower is _____ @2700 RPM.

13) The engine holds a maximum of _____ quarts of oil. Add oil when the level is below _____ quarts.

14) On takeoff, use _____ deg of trim when only the front seats are occupied. Use _____ deg of trim when both front and back seats are occupied.

15) After takeoff, raise the gear when _____.

16) If the door should open on takeoff:

a. _____
b. _____
c. _____

17) Calculate the following at 7,000' with 45 minutes reserve on a standard day:

	RPM	MP	GPH	TAS KTS	RANGE NM
75%	_____	_____	_____	_____	_____
65%	_____	_____	_____	_____	_____
55%	_____	_____	_____	_____	_____

18) Is "Lean Of Peak" operation approved for this aircraft? (Yes / No)

19) Emergency descent procedure is:

a) _____ b) _____

c) _____ d) _____

20) To recover from a spin:

a) _____ b) _____

c) _____ d) _____

21) To manually extend the landing gear:

a) _____ b) _____

c) _____ d) _____

e) _____ f) _____

g) _____

22) On a 100^{o}F day with no wind, what is the distance required to clear a 50-foot obstacle at gross weight and 4,000' pressure elevation? _____ ft.

23) To achieve the charted performance in the CLIMB Chart, the aircraft climb speed should be _____Kts.
(Care must be taken if maximum climb performance is needed to avoid maximum cylinder head temperatures.)

24) What is the Maximum Cylinder Head Temperature? _____ C. What is the Club's recommended Maximum? _____ C.

25) While performing the "Before Takeoff Checklist", maximum Magneto RPM drop is _____ . When testing the propeller control, the recommended RPM drop is _____ .

26) During cold weather, exercise the propeller _____ times before takeoff.

27) Indicate airspeeds in KTS:

VA _____	VNO _____
VFE _____ (Approach _____)	VS _____
VLO _____	VSO _____
VNE _____	VX _____
Best Glide_____	VY _____
Balked Landing _____	Maximum Demonstrated Crosswind _____

28) What is the "slip limitation" in this aircraft? _____.

29) From 8,000 AGL, approximately how far can the aircraft glide (no wind)? _____.

30) What is the Maximum Glide Configuration in this aircraft?

a) _____ b) _____

c) _____ d) _____

e) _____

31) At gross weight with gear and flaps retracted and zero angle of bank, what is the power off stalling speed? _____

32) In a 45^{o} bank with gear and flaps retracted, what is the power off stalling speed? _____

33) Is this aircraft approved for flight in known icing conditions? (Yes / No)

34) On final approach, check:

a) _____ b) _____

c) _____ d) _____

35) On a go round, apply power and raise (gear / flaps) first.

36) After landing, when are the flaps raised? _____.

37) In the event of a propeller over speed, what action should you take?

a) _____ b) _____

c) _____

38) Can the landing gear be raised with the hand crank? (Yes / No)

39) The gear warning horn will sound when the gear is up and _____.

40) The gear warning horn will sound (and remain on) when the gear is up and <u>any flap selection</u> is made (True / False).

41) To avoid thermal stress in the engine, avoid _____ descents.

42) As you descend, manifold pressure will (increase / decrease).

43) Except in extremely low temperatures, the cowl flaps should be (open / closed) during:
a) _____ b) _____

c) _____

44) The external power receptacle is located on_____. The voltage on the Auxiliary Power Unit should be set to (14 / 28) volts.

45) What position is the Battery Switch prior to connecting the Auxiliary Power Unit? (Off / On)

46) The landing gear is operated by (electric / hydraulic) power.

47) The three GREEN landing gear lights indicate _____.

48) The RED landing gear light illuminates when _____.

49) All gear lights out occurs when _____.

50) This aircraft (is / is not) certified for aerobatics.

51) Can the ELT be activated from the cockpit? (Yes / No)

52) The Attitude Indicator is (pressure / electrically) powered.

53) The Turn Coordinator is (pressure / electrically) powered.

54) This aircraft is equipped with a backup Alternator (Standby Generator)? (Yes / No)

55) This aircraft is equipped with a backup Pressure System? (Yes / No)

56) The HSI is (pressure / electrically) powered.

57) The autopilot in this aircraft has an “Altitude Hold” mode? (Yes / No)

58) Is this aircraft equipped with a Flight Director? (Yes / No)

59) Is this aircraft equipped with an “alternate static air source”? (Yes / No)
a. If Yes, where is it located? _____

60) How may an alternator problem be recognized by the pilot?
a) _____ b) _____

If installed, how can a <u>voltage meter</u> be used to indicate an electrical/alternator problem?

c) _____

61) Can this aircraft depart with an inoperative alternator? (Yes / No)

62) There are _____ exits (normal + emergency). Name them:

_____.

63) When turning the StandBy Generator to the "ON" position, the BUS Voltage will show _____Volts.

64) To properly activate the Standby Generator, the pilot must:
    a. Move the switch to the "ON" position
    b. Move the switch to the "STANDBY" position
    c. Move the switch to the "RESET" position and then release it so it goes to the "ON" position

65) If properly activated in "stand by mode", the BUS Voltage will show _____ volts.

66) The StandBy Generator (circle all that apply):
    a. Will run all systems normally
    b. Will run only items on the "stand by bus"
    c. Will charge the battery like the normal alternator
    d. Will require the landing gear to be extended manually
    e. Has a use limitation of 60 minutes

67) The StandBy Pressure Pump should be turned on and run for 2 to 3 minutes after each daily engine start to keep it properly lubricated? (Yes / No)

CLIMATE CONTROL SYSTEM (i.e. A/C & Heating System; "Climate System")

68) Where can official information about the Climate System be obtained:
    a. Contact Beech Aircraft
    b. Contact the Club's Maintenance Officer
    c. Read the Airplane Flight Manual Supplement

69) When the OFF Mode is selected on the Climate System, how long should the pilot wait before turning off the Battery Master Switch? _____. Why? _____.

70) If the Climate System is ON during takeoff, how does this change the following performance numbers from the POH:
    a. Ground Roll: _____ (Increase / Decrease)
    b. Takeoff Distance (over a 50' obstacle): _____ (Increase / Decrease)
    c. Rate of Climb: _____ (Increase / Decrease)

71) If a MAXIMUM climb performance is required, the Compressor should be switched to the:
    a. (Neutral / Off / Takeoff) position?

72) To maximize the Cooling of the Climate System the outside air vents and cabin firewall shut off valve should be (Open / Closed)?

73) If using the heating or defog operation of the Climate System, the cabin heat shutoff valve should be set to the (Open-Pushed-In / Closed-Pulled-Out) position?

74) How often does the Aircraft Registration on this aircraft expire? _____.

75) According to FAR Part 91, the _____ is responsible for determining whether the aircraft is safe and airworthy for flight.

Reviewed by: _____ Date: _____
(Authorized Club Checkout Instructor)