

BFC KNOWLEDGE TEST

PLEASE READ: The first half of the test incorporates general knowledge questions. The second half of the test is airplane specific. Only answer the questions for the airplane/airplanes you will fly. If you plan on flying the C-172's, fill out answers for all C-172's.

Name _____ Date _____

1. Which preflight action is specifically required of the pilot prior to each flight?
 - A. Check the aircraft logbooks for appropriate entries.
 - B. Become familiar with all available information concerning the flight.
 - C. File a flight plan.

2. Who is responsible for determining if the aircraft is in condition for a safe flight?
 - A. A certified mechanic
 - B. The owner or operator
 - C. The pilot in command

3. If an altimeter setting is not available before flight, to which altitude should the pilot adjust the altimeter?
 - A. The elevation of the nearest airport reporting barometric pressure.
 - B. The elevation of the departure airport.
 - C. Pressure altitude corrected for non-standard temperature.

4. What are wing-tip vortices (wake turbulence)? With which aircraft are they the greatest? Describe proper avoidance?

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5. Which instrument will become inoperative if the pitot tube becomes clogged?
 - A. Altimeter
 - B. Vertical Speed Indicator
 - C. Airspeed Indicator

6. When taxiing with strong quartering tailwinds, which aileron position should be used?
 - A. Aileron down on the downwind side.
 - B. Ailerons neutral.
 - C. Aileron down on the side from which the wind is blowing.

7. When are you required to wear a safety belt? A shoulder harness?

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8. Which turn direction is standard for the BFL runway 30L traffic pattern? Which turn direction is standard for the DLO runway 14 traffic pattern?

.....

9. List the documents that must be in the aircraft at all times. A- _____

R- _____

(R)- _____

O- _____

W- _____

10. Which basic flight maneuver increases the load factor on an airplane?

A. Climbs

B. Turns

C. Stalls

11. When can a student pilot carry passengers in the airplane?

12. Which color on the airspeed indicator identifies the power-off stalling speed with wing flaps and landing gear in the landing configuration?

A. Upper limit of the green arc.

B. Upper limit of the white arc.

C. Lower limit of the white arc.

13. In what flight condition must the airplane be placed in order to spin?

A. In a steep diving spiral.

B. Nose high attitude.

C. Stalled.

14. What is the first action during a go-around?

15. Minimum controllable airspeed is defined as?

A. The speed at which the wings are no longer capable of supporting the weight of the airplane.

B. Any speed below normal cruising range.

C. The speed at which an additional increase in load factor or angle of attack, or power reduction, will result in a stall.

16. Name the instruments connected to the engine-driven vacuum suction system.

17. If an in-flight emergency requires immediate action, a pilot in command may?

A. Deviate from the F.A.R.'s to the extent required to meet the emergency, but must submit a written report to the Administrator(FAA) within 24 hours.

B. Not deviate from the F.A.R.'s unless, prior to the deviation, approval is granted by the Administrator(FAA).

C. Deviate from the F.A.R.'s to the extent required to meet that emergency.

18. Except when necessary for take-off and landing, what is the minimum safe altitude for a pilot to operate an aircraft?

- A. An altitude allowing, if a power unit fails, an emergency landing without undue hazard to persons or property on the surface, can be made.
- B. An altitude of 500 feet above the surface and no closer than 500 feet to any person, vessel, vehicle, or structure.
- C. An altitude of 500 feet above the highest obstacle within a horizontal radius of 1,000 feet.

19. Will the engine run with the master switch turned off? Why?

20. If an aircraft's radio fails, what is the recommended procedure when landing at a controlled airport?

- A. Observe the traffic flow, enter the pattern, and look for a signal from the tower.
- B. Enter a crosswind leg and rock the wings.
- C. Flash the landing lights and cycle the landing gear while circling the airport.

21. A student pilot is required to have a valid student pilot certificate, logbook, government issued photo ID and current medical certificate in his/her personal possession:

- A. At all times.
- B. When acting as pilot in command during solo flight.
- C. Only if specifically required by the flight instructor who endorses the student for solo.

22. A third class medical certificate issued on May 3, 2014 would expire (if under the age of 40):

- A. May 3, 2019
- B. May 31, 2019
- C. May 31, 2016

23. Which aircraft has the right-of-way over all other aircraft?

- A. Balloon
- B. An aircraft in distress.
- C. An aircraft on final approach to land

24. Regulations require a fuel reserve of at least _____minutes for day VFR operations, and at least _____minutes for night VFR operations.

25. In the event of a total electrical failure, which of the following items or systems will become inoperative in the aircraft you currently fly?

- A. Flap extension/retraction system
- B. Attitude indicator
- C. Turn Coordinator
- D. Engine ignition system
- E. Fuel quantity indicators
- F. Rotating beacon
- G. Fuel selector
- H. Fuel Pump
- I. Tachometer

Signature of CFI _____

Date _____

Certificate No. _____ Expiration Date _____

I have completed the above Written Examination and have received instruction in the areas that I missed.

Customer Signature _____ Date _____

1976 C172M N73103

1. What are the following speeds:

Vr

Vy

Vx

Va

Vs

Vso

Best Glide

2. What is the flap setting for:

Normal Takeoff

Short Field Takeoff

Soft Field Takeoff

3. What is the gross weight of the airplane? Empty weight?

Useful load?

Does this differ from other C172 in Club? If so, how?

4. Do a weight and balance calculation for yourself, your spouse or buddy in the front seat, and two 170lb passengers in the back seat, with full fuel. Are you safe and legal to operate under these conditions? If not, why not, and what could you adjust to maintain safety?

5. What is the takeoff and landing distances required under the following conditions:

90 degree F OAT

Kern Valley Airport

Wind [190@15](#)

Altimeter: 29.90

Takeoff:

Landing:

6. Describe how to program the Garmin 530 for a 'direct to' flight from KBFL to Fresno.

7. List four ways to disconnect the autopilot











1. _____

2. _____

3. _____

4. _____

8. What do the following annunciations displayed on the G5 indicate?

9. What is ESP and how can you turn it off/on?

10. Can you solo the aircraft in the right seat and use the autopilot?

11. What is the minimum altitude you can activate the autopilot?

12. What is 'Pitch Trim Runaway' and how do you correct for it?

1977 C172N N73977

1. How do you adjust the volume on the Garmin GMA340 intercom for the passengers in the rear seats?
.
2. If the GTN650 GPS has an expired database can you still fly the airplane VFR/IFR?
_____What are the limitations, if any?
.
3. Name 2 ways to go direct to an airport on the GTN650? _____
.
4. How do you connect the #1 CDI to the GTN650 VOR or LOC radio?
.
5. During engine run-up, when you do the mag check one of the mags has a 200 RPM drop. You suspect a fouled spark plug. How do you correct this?
.
6. How do you detect carburetor ice inflight?
.
7. What is the total fuel capacity? _____
8. What is the oil quantity for normal flights of less than 3 hours? _____
Extended flight? _____ What type of oil should you use? _____
9. What is the useful load? _____ What is useful load with full fuel? _____
10. Name 4 ways to turn off the Auto Pilot _____
.
11. If you suspect carburetor ice in flight, what is the proper procedure?
.
12. Inflight, the over voltage light illuminates. What is the procedure to correct this?
.
13. What are the following speeds:
 - Vr
 - Vy
 - Vx
 - Vfe
 - V approach
 - Best Glide

2001 C172S N2363K

1. What are the following published V speeds?

Vy

Vx

Va

Vs

Vso

Best Glide

2. What is the fuel capacity with full fuel tanks? To the tabs?
3. Explain the priming procedures for a normal start.
4. What is the ground leaning procedure after start?
5. What specific oil does this aircraft take, what is the minimum and maximum level?
6. What is the maximum speed you can add 10 degrees of flaps? 20 degrees of flaps?
7. What is the recommended flap setting if conducting a forward slip?
8. What are the steps for a hot start?

9. What are the starter limitations?

10. What are the steps for an engine failure in flight (restart procedure)?

11. Do a weight and balance with you and a friend, 250 pounds of luggage spaced however needed, and fuel to the tabs. Are you within weight and balance limits?

12. How many fuel sumps are on this aircraft? Where are they located?

13. What is the BARO button for on the autopilot, how often does it need to be set?

14. How do you know the autopilot completed a successful self-test?

15. What is the maximum amount of flaps while the autopilot is engaged?

16. If the attitude indicator fails, does this affect the autopilot operation? If the turn coordinator fails, does this affect the autopilot operation?

17. What does it mean if a voice in your headset says, "trim in motion", or "check trim pitch?"

 18. What are the steps to preflight the autopilot? When is this procedure required?

 19. How many vacuum pumps are on this aircraft?

 20. Explain how to lean using the EGT gauge.

 21. What is the purpose of the electric fuel pump? When do we use it?

 22. This Cessna model, C172S, has a different door mechanism than earlier models of C172's. If you slam the door, the mechanism will break. The proper way to close these doors from the inside is to gently pull the door closed until you hear the click, then push forward on the handle to the lock position. Please do not slam the door.
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1977 C172N N733XZ

1. What is the maximum weight of this aircraft?

2. What are the following speeds:

Vr:

Vy:

Vx:

Vfe:

V approach:

Best Glide:

3. What is the maximum flap deflection angle for this aircraft?

4. At 6000ft Pressure Altitude, 2500 RPM, and at standard temperature, what is the expected gallons per hour fuel burn for this aircraft?

5. What is the maximum forward CG at 1950 lbs. or less?

6. What is the takeoff and landing distances required under the following conditions:

85 degree F OAT

KPRB

Wind 040 @ 11

Altimeter: 30.13

Takeoff:

Landing:

7. Is there any other trim in the airplane other than Elevator trim?

8. Do a weight and balance calculation for yourself, your spouse or buddy in the front seat, and two 200lb passengers in the back seat, with 30 gallons of fuel. Are you safe and legal to operate under these conditions? If not, why not, and what could you adjust to maintain safety?

9. List five ways to disconnect the autopilot

1. _____

2. _____

3. _____

4. _____

5. _____

