

Cessna Course Tracking Application

Pre-Solo Knowledge Test Shannon School of Aeronautics

SSA Pre-Solo Knowledge Test

Instructions: Answer each question in the space provided, using the FARs, the AIM, the Airport/Facility Directory, and the Pilot's Operating Handbook.

1. What is the maximum gross and takeoff weight and of your aircraft?
2. If a glider is converging with an airplane, which has the right of way?
3. What is the takeoff ground roll and the distance over a 50-ft. obstacle for your airplane at your airport with full fuel, a temperature of 29C, 5-kt. headwind, and an altimeter setting of 29.64?
4. What preflight action is required of a pilot prior to a flight?
5. What is the ground roll and total landing distance over a 50-ft obstacle for your airplane at KEZF with 3/4 fuel, a temperature of 32C, calm wind, and an altimeter setting of 30.10?
6. Compute the location of the center of gravity (CG) for your solo flight with full fuel in your airplane. Is it within CG limits?
7. Generally, describe the engine in your airplane.
8. List the definition of careless or reckless operation.
9. What is the oil sump capacity in your airplane? What is the minimum?
10. What is the minimum amount of time after the consumption of alcohol a pilot is required to wait before flying?
11. What would happen to the fuel indicators if all electricity in the airplane was lost?
12. What is the minimum visibility and ceiling for a student to takeoff at KEZF?
13. Why is it necessary to drain fuel out of the sumps after refueling and before the first flight of the day?

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14. List and describe each of the light gun signals available from air traffic control .

15. Will the engine still run if the master switch is off? Why?

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

17. What endorsements are required for solo flight? What 4 documents must you have in your possession to solo an aircraft as a student?

18. During runup, what is the maximum allowable rpm drop when checking the magnetos?

19. Draw an airport traffic pattern, labeling each leg and the proper entry and departure points. Which turn direction is standard for an airport traffic pattern? What radio communications are required at KEZF & KRMN?

20. List the traffic pattern altitude, direction of turns, noise abatement procedures, and all radio frequencies for the following: KEZF & KRMN and their runways.

21. What is the fuel capacity? How much is usable?

22. What is the authority and responsibility of the pilot in command?

23. When are you required to wear a safety belt?

24. When are you permitted to deviate from an ATC instruction ?

25. What grade and color fuel does the 172M/N use?

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26. When an aircraft is approaching another head-on, each pilot should alter their course to the _____.
27. A(n) _____ on the runway indicates that the runway is closed.
28. Draw the pavement marking requiring you to stop before entering a runway.
29. When is dropping objects from an airplane permitted?
30. The _____ of two aircraft on approach to the same runway has the right of way.
31. What must a pilot do before entering Class D airspace?
32. What is the minimum safe altitude anywhere? Over congested areas?
33. List the day-VFR weather minimums in Class G, E, and D airspace.
34. List the documents that must be aboard the airplane at all times.
35. When must the airplane's navigation lights be on?
36. Can a student pilot fly into Class B airspace? If so, what is required?
37. What is the minimum reserve fuel required for day VFR operations?
- 38.. Define and list the following speeds for your 172M/N aircraft:
- Vs -
 - Vso -
 - Vx -
 - Vy -
 - Va -
 - Vfe -
 - Vno -
 - Vne -
39. What is the airplane's best glide speed? When is it used?

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40. List the procedure to respond to an in-flight engine failure.
41. List the procedure to respond to an engine fire on the ground while starting.
42. List the procedure for loss of communication radio when arriving at an airport with an operating control tower, and at KEZF?
43. How long can you fly on just the battery if the alternator malfunctions?
44. How far away from the airport are you allowed to fly as a solo student?
45. What is CTAF? Explain CTAF procedures at KEZF.
46. How can you determine if a runway is closed?
47. What are the typical dimensions of class D airspace and what requirement(s) must be met prior to entry?
48. What class of airspace is KEZF at the surface? What altitude does it change and to what airspace?
49. If you receive ATC instructions that you feel may compromise safety or will cause you to violate an FAR, what should you do?
50. After touching down, when should the pilot apply wheel brakes?
51. What is your maximum demonstrated crosswind component of the Cessna 172?
52. When is a Go-Around appropriate?
53. Are SSA solo students allowed to fly into class B airspace?
54. You have called ATC prior to entering Class C airspace, and the controller responds with your call sign and tells you to "Standby." Are you now allowed to enter this airspace without any further instructions? Explain.
55. Describe the typical dimensions of Class C airspace. Is participation in the radar service mandatory within the outer area of Class C airspace?
56. Describe the Class C boundaries that affect your airport or a nearby airport. Explain how you can use navigation equipment and/or ground reference points to identify the Class C airspace inner core surface area and shelf area, as well as the outer area. (Draw a diagram, if necessary.)
57. A transponder with Mode C is required at all times in all airspace at and above _____ feet MSL, excluding airspace at and below _____ feet AGL.

Cessna Skyhawk C-172 M or N

1. Aircraft dimensions: a. Wingspan: _____ b. Length: _____ c. Propeller ground clearance: _____
2. Fuel: a. Minimum octane fuel grade is: _____ b. Color is _____ or _____

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3. Maneuvering speed (Va) Increases/Decreases as the flight progresses (circle one).
4. When are intentional spins permitted?
5. List maneuvers approved in the utility category:
6. Flight into known icing conditions is _____
7. Takeoffs and landings should be made with the fuel selector in the _____ position.
8. What is the procedure for landing without engine power?
9. The over voltage light illuminates. What are your actions?
10. The engine begins to run rough in normal cruise flight. What are the probable causes? _____

11. Approach speeds: a. Initial descent: _____ b. Base: _____
c. Final Approach: _____
12. Normally slips ARE/ARE NOT recommended with flaps fully extended. Slips with up to _____ o flaps are permitted.
- 13.
14. The pilot checklist calls for checking _____ fuel sump drains. They are located:
15. Maximum total allowable loading in baggage areas 1 and 2 is: _____
16. Oil capacity for the engine: a. Maximum capacity: _____ b. Minimum safe quantity: _____
17. The stall warning horn sounds _____ knots/mph before stall.
18. Maximum Window Open speed _____

Customer's Name: _____

CFI Name: _____

CFI

Signature: _____ Date: _____

CFI Number: _____ Expiration: _____