

Pre-Solo Written Knowledge Exam Key

Name: _____ Date: _____

Multiple Choice

1. Which combination of atmospheric conditions will reduce aircraft takeoff and climb performance?
 - a. Low temperature, low relative humidity, and low density altitude.
 - b. High temperature, low relative humidity, and low density altitude.
 - c. High temperature, high relative humidity, and high density altitude.**
2. Which type of weather briefing should a pilot request when departing within the hour, if no preliminary weather information has been received?
 - a. An outlook briefing.
 - b. An abbreviated briefing.
 - c. A standard briefing.**
3. What conditions are necessary for the formation of thunderstorms?
 - a. High humidity, lifting force, and unstable conditions.**
 - b. High humidity, high temperature, and cumulus clouds.
 - c. Lifting force, moist air, and extensive cloud cover.
4. Who is responsible for making the “go/no go” decision for each flight?
 - a. Pilot-in-command.**
 - b. Certified flight instructor.
 - c. Chief flight instructor.
5. What information is necessary in order to make a “go/no go” decision?
 - a. Permission from the chief flight instructor, chief mechanic, and weather briefer.
 - b. Acceptable weather conditions, an airworthy aircraft, and an airworthy pilot.**
 - c. Permission from the weather briefer, an airworthy aircraft, and an airworthy pilot.
6. Two-way radio communication must be established with the Air Traffic Control facility having jurisdiction over the area prior to entering which class airspace?
 - a. Class C**
 - b. Class E
 - c. Class G

7. Unless otherwise authorized, two-way radio communications with Air Traffic Control are required for landings and takeoffs?
 - a. At all tower controlled airports within Class D airspace only when weather conditions are less than VFR.
 - b. At all tower controlled airports regardless of weather conditions.**
 - c. At all tower controlled airports only when weather conditions are less than VFR.
8. Which is the correct traffic pattern departure procedure to use at an uncontrolled airport?
 - a. Comply with any FAA traffic pattern established for the airport.**
 - b. Depart in the desired direction after reaching 500' AGL.
 - c. Make all turns to the left.
9. In headwind conditions, the groundspeed will _____ the airspeed?
 - a. Exceed
 - b. Be less than**
 - c. Be the same as
10. To maintain a desired track over the ground, apply?
 - a. A wind correction angle into the wind.**
 - b. A wind correction angle out of the wind.
 - c. Power and a steeper bank angle.
11. The numbers 9 and 27 on a runway indicate that the runway is oriented approximately?
 - a. 009 and 027 degrees true
 - b. 090 and 270 degrees true
 - c. 090 and 270 degrees magnetic**
12. In an in-flight emergency requiring emergency action, the pilot-in-command?
 - a. May deviate from any rule of FAR Part 91 to the extent required to meet that emergency.**
 - b. Must not deviate from any rule of FAR Part 91.
 - c. May deviate from any rule of FAR Part 91 but only after receiving prior permission from ATC.
13. When approaching another aircraft head-on, each pilot must alter his/her course?
 - a. To the left
 - b. To the right**
 - c. With a descent
14. Typically, an airplane should be taken off and landed?
 - a. With the wind
 - b. Into the wind**
 - c. Perpendicular to the wind

15. When you fly solo, you are pilot-in-command, and you are required to have in your personal possession a?
- Pilot certificate and logbook.
 - Pilot certificate, government issued photo-ID, and medical certificate.**
 - CFI solo endorsement, and copy of the FAR/AIM.
16. A person may not act as a crewmember of a civil aircraft if alcoholic beverages have been consumed by that person within the preceding?
- 8 hours**
 - 12 hours
 - 24 hours
17. Fill in the V-speed definitions and the corresponding airspeed:

V-Speed	Definition	Airspeed
Vr	The speed at which the rotation of the aircraft should be initiated to takeoff attitude	55 kts
VS1	The stalling speed or the minimum steady flight speed obtained in a specific configuration	47 kts
VS0	The stalling speed or the minimum steady flight speed in the landing configuration	41 kts
VX	The airspeed that allows for the best angle of climb	59 kts
VY	The airspeed that allows an aircraft to gain the most altitude in the shortest amount of time	73 kts
VFE	Maximum flap extended speed	85 kts
VA	Design Maneuvering Speed, which is the maximum speed at which an aircraft can operate safely during turbulence or heavy wind gusts	97 kts
VNO	"Maximum structural cruising speed" or "normal operating speed" in aviation. It's the highest speed at which an aircraft can be safely flown in calm air without turbulence.	127 kts

VNE	Never-exceed speed	158 kts
Best Glide	Airspeed at which an aircraft can glide the farthest distance for a given altitude	65 kts

18. What grade of fuel may be used in a C172?
- 100LL**
 - Jet A
 - 80
19. Max total and usable gallons?
- 65 gallons total, 60 usable
 - 43 gallons total, 40 usable**
 - 26 gallons total, 24 usable
20. What is the correct spin recovery procedure?
- PARE: power idle, ailerons neutral, rudder opposite spin, elevator forward.**
 - REAP: rudder neutral, elevator forward, ailerons opposite spin, power idle.
 - PARE: power idle, aileron opposite spin, rudder neutral, elevator forward.
21. During the magneto check in the run-up checklist, what is the maximum allowable RPM drop and what is the maximum difference between the two magnetos?
- 200 max, +/- 100 difference
 - 400 max, +/- 200 difference
 - 125 max, +/- 50 difference**
22. What is the traffic pattern altitude at KOKK in the aircraft you are using?
- 1,500'
 - 2,000'
 - 1,800'**
23. What does CTAF stand for, and what is the CTAF frequency at KOKK?
- Common Traffic Area Frequency, 122.8
 - Common Traffic Advisory Frequency, 122.9
 - Common Traffic Advisory Frequency, 123.0**
24. When two aircraft are on final approach at the same time, which aircraft has right of way?
- The lower aircraft**
 - The higher aircraft
 - Whoever makes their radio call first
25. If two aircraft of the same category are converging, which aircraft has right of way?

- a. The aircraft to the others left.
 - b. The aircraft to the others right.**
 - c. The smaller aircraft.
26. What is the minimum fuel reserve for day VFR flight, and on what cruise speed is the fuel reserve based?
- a. 30 minutes for FAA, 1 hour for FTC at normal cruising speed.**
 - b. 1 hour for FAA, 1 hour for FTC at normal cruising speed.
 - c. 30 minutes for FAA, 45 minutes for FTC at normal cruising speed.
27. Why should you pay attention to your surroundings when positioning the aircraft for engine run up?
- a. To ensure the aircraft is positioned downwind.
 - b. You may cause rocks, debris, and propeller blast to be directed toward another aircraft or person.**
 - c. To ensure nobody cuts in front of you to takeoff first.
28. Which of the following aircraft certificates and documents is NOT required to be on board during flight?
- a. Airworthiness certificate
 - b. Registration
 - c. Aircraft logbooks**