FAA Part 107 Practice Test Answer Book

Drone U

Answer Guide to FAA Part 107 Practice Test

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ANSWER KEYS

1. A

You may operate a sUAS from a moving vehicle if you are in a sparsely populated area and the driver does not serve as the remote PIC, person manipulating the controls, or visual observer.
Reference: 14 CFR 107.25

2. C

You may not operate a small unmanned aircraft directly over another person unless that person is directly involved in the operation (such as a visual observer or other crew member) or within a safe cover, such as inside a stationary vehicle or a protective structure that would protect a person from harm if the small unmanned aircraft were to crash into that structure. Reference: 14 CFR 107.39

3. C

This scenario is not compliant with Part 107. You may not operate over non-participants without safe cover and you may not drop objects in a manner that creates hazard.

4. A

A remote pilot-in-command must be used during Part 107 a sUAS operations. A visual observer is optional. The person manipulating the controls may be the remote PIC, or must be operating under the direct supervision of the remote PIC.
Reference:14 CFR 107.19

5. B

A person may not operate or act as a remote pilot-in-command or visual observer in the operation of more than one unmanned aircraft at the same time.

6. B

An unmanned aircraft means an aircraft operated without the possibility of direct human intervention from within or on the aircraft. Reference: 14 CFR 107.1, 107.3, AC 107-2

7. C

No items may be dropped from the small unmanned aircraft in a manner that creates undue hazard to persons or property.
Reference: 14 CFR 107.23

8. B

The sUAS cannot be flown faster than a ground speed of 87 knots (100mph) and must be operated below 400 feet.
Reference: 14 CFR 107.51

9. A

Except in an emergency, no person may operate an aircraft contrary to an ATC clearance or instruction.
Reference: 14 CFR 107.21

10. B

"Owners must register the sUAS if it is greater than 0.55 lbs., less than 55 pounds and operated under the provisions of the 14 CFR Part 107.
Reference: 14 CFR 107.13"

11. A

"Both the Aeronautical Information Manual (AIM) and the Pilot's Handbook of Aeronautical Knowledge (FAA-H-8083-25) contain explanations of airport signs and markings
Reference: AIM Chapter 2, Section 3"

12. B

"All activity within an Alert Area shall be conducted in accordance with FAA regulations, without waiver, and pilots of participating aircraft, as well as pilots transiting the area, shall be equally responsible for collision avoidance
Reference: AIM 3-4-6"

13. C

"No person may operate a small unmanned aircraft in class B, Class C, or class D airspace or within the lateral boundaries of the surface area of Class E airspace designated for an airport unless that person has prior authorization from ATC
Reference: 14 CFR 107.41"

14. A

"When approaching the holding line from the side with the continuous lines, a pilot should not cross the holding line without ATC clearance at a controlled airport, or without making sure of adequate separation from other aircraft at uncontrolled airports. Reference: AIM 2-3-5"

15. "The dimensions of Class D airspace are as needed for each individual circumstance. The airspace may include extensions necessary for IFR arrival and departure paths.
Reference: AIM 3-2-5"

16. A

"Runway hold markings are indicated by two double dashed and two solid yellow lines. You are considered to be on the taxiway on the double solid yellow line side while you are considered to be on the runway if on the double dashed yellow line side.
Reference: AIM 2-3-4"

17. B

"When a manned aircraft is approaching to land at an airport in Class G airspace without an operating control tower, each pilot of an airplane will make all turns to the left unless the airport displays approved light signals of visual markings indicating that turns should be made to the right (which will be detailed in the Chart Supplements US)
Reference: 14 CFR 91.126"

18. A

Airports having control towers are shown in blue, all others in magenta. Reference: Sectional Chart Legend."

19. A

Restricted areas can be penetrated but only with the permission of the controlling agency. No person may operate an aircraft within a restricted area contrary to the restrictions imposed unless he/she has the permission of the using or controlling agency. Penetration of restricted areas without authorization from the using or controlling agency may be fatal to the aircraft and its occupants
Reference: 14 CFR 107.45, AIM 3-4-3

20. B

"Effective scanning is accomplished with a series of short, regularly spaced eye movements that bring successive areas of the sky into the central visual field. Each movement that brings successive areas of the sky into the central visual field. Each movement should not exceed 10 degrees and each area should be observed at least one second to enable detection.
Reference: AIM 8-1-6"

21. B

"Ice pellets always indicate freezing rain at higher altitude.
Reference: AC 00-6B"

22. A

"Part 107 a sUAS operations require the minimum distance of the small unmanned aircraft from clouds must be no less than 500 feet below the cloud and 2,000 feet horizontally from the cloud.
Reference: 14 CFR 107.51"

23. C

"Fog is more likely to form when the temperature and dew point convergence. A difference between these two temperatures of 3 degrees C (or 5 degrees F) is indicative of possible fog formation.
Reference: AC 00-6B"

24. C

"A thunderstorm is, in general, a local storm invariably produced by a cumulonimbus cloud, and is always accompanied by lightning and thunder.
Reference: AC 00-6B"

25. C

"The propeller produces thrust in proportion to the mass of air being accelerated through the rotating blades. If the air is less dense, propeller efficiency is decreased.
Reference: FAA-H-8083-25"

26. A
"Characteristics of a moist unstable air mass include cumuliform clouds, showery precipitation, rough air (turbulence), and good visibility (except in blowing obstructions)
Reference: AC 00-6B"

27. B
"A condition favorable for rapid accumulation of clear icing is freezing rain below a frontal surface.
Reference: AC 00-6B"

28. A
"Wind direction always changes across a front
Reference: AC 00-6B"

29. B
"Characteristics of a stable air mass include stratiform clouds and fog, continuous precipitation, smooth air, and fair to poor visibility in haze and smoke.
Reference: FAA-H-8083-25"

30. C
"An individual microburst will seldom last longer than 15 minutes from the time it strikes the ground until dissipation. However, there may be multiple microbursts in the area.
Reference: AIM 7-1-25"

31. A
"Any mounted equipment should be balanced in a manner that does not adversely affect the center of gravity or result in unsafe performance.
Reference: AC 107-2"

32. A
"Loading the aircraft outside of limitations (weight, balance, or both) may lead to moments that exceed the capabilities of the flight controls/ engine (s), thus possibly leading to loss of control or other performance anomalies?
Reference: FAA-H8083-1"

33. B
"The airfoil will stall if the critical angle of attack is exceeded.
Reference: FAA-H-8083-3"

34. B

"The maximum endurance condition is obtained at the point of minimum power required since this would require the lowest fuel flow or battery to keep the sUAS in steady, level flight. Maximum range condition occurs where the proportion between speed and power required is greatest.
Reference: FAA-H-8083-25"

35. A
"Total range is dependent on both fuel available and specific range. When range and economy of operation are the principal goals, the remote pilot must ensure that the sUAS is operated at the recommended long range cruise condition. By this procedure, the sUAS will be capable of its maximum design-operating radius, or can achieve lesser flight distances with a maximum of fuel reserve at the destination
Reference: FAA-H-8083-25"

36. C
"The manufacturer is the best source of performance data and information, if available
Reference: FAA-H-8083-25"

37 A
"The effect of runway slope on launch distance is due to the component of weight along the inclined path of the aircraft. An upslope would contribute an accelerating force component. In the case of an upslope, the retarding force component adds to drag and rolling friction to reduce the net accelerating force.
Reference: FAA-H-8083-25"

38 C
"Unmanned airplane performance can be decreased due to an increase in load factor when the airplane is operated in maneuvers other than straight and level flight.
Reference: FAA-H-8083-25"

39 C
"The most critical conditions of launch performance are the result of some combination of high gross weight, altitude, temperature and unfavorable wind. In all cases the remote pilot must make and accurate prediction of take-off distance from the performance data of the AFM/ POH, regardless of the runway available, and strive for polished, professional launch procedures.
Reference: FAA-H-8083-25"

40 A
"Prior to each flight, the remote PIC must ensure that any object attached to or carried by the small unmanned aircraft is secure and does not adversely affect the flight characteristics or controllability of the aircraft
Reference: AC 107-2"

41 A
"A flyaway is when the sUAS becomes uncontrollable and does not operate in a manner that would be expected in a normal or lost link flight situation.
Reference: 14 CFR Part 107"

42 C
"Fatigue can be either acute (short-term) or chronic (long-term). Acute fatigue, a normal occurrence of everyday living, is the tiredness felt after long periods of physical and mental strain, including strenuous muscular effort, immobility, heavy mental workload, strong emotional pressure, monotony, and lack of sleep. Chronic fatigue occurs when there is not enough time for a full recovery from repeated episodes of acute fatigue.
Reference: FAA-H-8083-25"

43 A
"Frequency interference is one of the most common causes of flyaways; therefore, remote PICs should assess the risk of such interference prior to and during flight. Extra caution is necessary when operating in the vicinity of other a sUAS. The loss of GPS may degrade the sUAS capabilities slightly but should not cause a flyaway. It is not unusual for people to stand near the control station; it is highly unlikely for this to cause a flyaway.
Reference: AC 107-2"

44 C
"An aircraft exiting a runway is not clear of the runway until all parts of the aircraft have crossed the applicable holding position marking.
Reference: AIM 2-3-5"

45 C
"The preferred source of information is the manufacturer's guidance about maintenance schedule and instructions,
Reference: AC 107-2"

46 B
"Remote PICs should monitor the appropriate aviation frequency such as CTAF during flight operations and make announcement concerning a sUAS operations as appropriate. Some a sUAS require the use of cellphone or tablet computers for operation, therefore are acceptable for use in most cases. The best way to avoid frequency interference is to check local frequency spectrum use prior to flight and continue to monitor such use during flight by utilizing a frequency spectrum analyzer.
Reference: AC 107-2"

47 A
"Follow all manufacturer maintenance recommendations to achieve the longest safest service life of the sUAS. If the sUAS or component manufacturer does not provide scheduled

maintenance instructions, it is recommended that you establish your own scheduled maintenance protocol.
Reference: AC 107-2"

48 B
"The remote PIC is responsible for determining whether that aircraft is in condition for safe flight.
Reference: FAA-H-8083-25"

49 B
"Hyperventilation is most likely to occur during period of stress or anxiety
Reference: AIM 8-1-3"

50 C
"Most a sUAS are designed to fly normally with minimal impact on features or controllability if GPS signals are degraded or lost. Loss of GPS is not an emergency and is not considered to be a loss of link between the unmanned aircraft and the control station. If the failure of GPS does result in a flyaway or other dangerous situation, it should be treated as an emergency.
Reference: AC 107-2"

51 A
"A pilot who has just landed should not change from the tower frequency to the ground control frequency until directed to do so by the controller
Reference: AIM 4-3-14"

52 B
"Most a sUAS are designed to fly normally with minimal impact on features or controllability if GPS signals are degraded or lost. Loss of GPS is not an emergency and is not considered to be a loss of link between the unmanned aircraft and the control station. If the failure of GPS does result in a flyaway or other dangerous situation, it should be treated as an emergency.
Reference: AC 107-2"

53 A
"Pilot performance can be seriously degraded by both prescribed and over-the-counter medications, as well as by the medical conditions for which they are taken. Flying is almost always precluded while using prescription analgesics since these drugs may cause side effects such as mental confusion, dizziness, headaches, nausea, and vision problems. Depressants, including antihistamines, lower blood pressure, reduce mental processing and slow motor and reaction responses.
Reference: FAA-H-8083-25"

54 C
"The antiauthority (don’t tell me) attitude is found in people who do not like anyone telling them what to do. The antidote for this attitude is: follow the rules, they are usually right.
Reference: FAA-H-8083-25"

55 A
"Damaged batteries should never be used or charged. Lithium batteries do normally get warm during discharge. Avoid the use of hot batteries. New batteries should be treated per manufacturing instructions, but do not normally need several charge cycles to use.
Reference: SAFO 10017"

56 B
"No person may operate a sUAS unless it is in a condition for safe operation. Prior to each flight, the remote pilot-in-command must check the sUAS to determine whether it is in a condition for safe operation. No person may continue flight of the small unmanned aircraft when he or she knows or has reason to know that the small unmanned aircraft system is no longer in a condition for safe operation
Reference: 14 CFR 107.15"

57 B
"The term ""initial radio contact"" or ""initial call-up"" means the first radio call you make to a given facility, or the first call to a different controller or Flight Service specialist within a facility. Use the following format:

1. Name of the facility being called
2. You full aircraft identification as filed in the flight plan
3. Type of message to follow or your request if it is short
4. The word ""over"" if required (typically omitted, except for communications via a remote communication outlet or in cases when it is necessary to confirm the end of a transmission

Example: New York Radio, Mooney Three One One Echo, over
When the aircrafts manufacturer's name or model is stated, the prefix ""N"" is dropped. The first two characters of the call sign may be dropped only after ATC calls you by your last three numbers
Reference: AIM 4-2-3"

58 C
"The pilot is responsible for determining whether he or she is fit to fly for a particular flight
Reference: FAA-H-8083-25"

59 A
"The fatigues pilot is an impaired pilot, and flying requires unimpaired judgment.
Reference: FAA-H-8083-2"

60 A
"During a flyaway event a sUAS may not react in ways that can be expected or predicted thus this is an emergency situation. The remote PIC should immediately communicate this emergency to crew members and ATC (if applicable) as well as any persons in the immediate

area so as to minimize risk for injury. There is no obligation to contact the NTSB or law enforcement during a flyaway.
Reference: 14 CFR 107.19, 107.21"