

FAA Part 107 Practice Test Answer Book

Drone U

Answer Guide to FAA Part 107 Practice Test

Available at <https://www.thedroneu.com/blog/faa-part-107-practice-test/>

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. B

Under FAA rules, most Part 107 operations require Remote ID unless the flight occurs within a FAA-Recognized Identification Area (FRIA). Weight alone does not exempt a drone from Remote ID.

Reference: 14 CFR Part 89

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 a 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

Compliance can be achieved by using a drone with a built-in Standard Remote ID or by adding a broadcast module. Operational restrictions like altitude or daylight do not replace Remote ID compliance.

Reference: 14 CFR Part 89.105, Part 89.115

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. C

For night operations, the FAA requires anti-collision lighting visible for at least **3 statute miles** to reduce collision risk.

Reference: 14 CFR §107.29(b)

12. C

The FAA removed the night waiver requirement but now mandates updated training or testing covering night operations.

Reference: 14 CFR §107.29(a)

13. D

Airworthiness certificates are a requirement for Category 4 operations. You can eliminate that option if asked about Categories 1–3.

14. A

A useful mnemonic is: “Solid is Safe, Dashed is Dangerous.” You must be on the solid side of the hold short markings to be considered clear.

15. 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

16. 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

17. 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

18. 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

19. C

The dimensions of Class D airspace are as needed for each circumstance. The airspace may include extensions necessary for IFR arrival and departure paths.

Reference: AIM 3-2-5

20. 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

21. C

LAANC authorization is required for Part 107 flights in controlled airspace (Class B, C, D, and some Class E near airports). Class G airspace does not require authorization.

Reference: 14 CFR §107.4

22. B

Category 1 operations are allowed without a waiver if the drone meets injury risk limits and other FAA requirements.

Reference: 14 CFR Part 107, Subpart D (especially §107.145)

23. 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

24. 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 brings successive areas of the sky into the central visual field. Each movement should not exceed 10 degrees, and each area should be observed for at least one second to enable detection.

Reference: AIM 8-1-6

25. C

High, hot, and humid conditions (known as the "Three Hs" or "High Density Altitude") reduce air density, making both wings and propellers less effective.

26. B

High-density altitude refers to low air density, which negatively impacts aircraft performance. It's common in hot, high, or humid environments.

27. B

Ice pellets always indicate freezing rain at higher altitudes.

Reference: AC 00-6B

28. A

Part 107 a sUAS operations require the minimum distance of the small unmanned aircraft from clouds to be no less than 500 feet below the cloud and 2,000 feet horizontally from the cloud.

Reference: 14 CFR 107.51

29. C

Fog is more likely to form when the temperature and dew point converge. A difference between these two temperatures of 3 degrees C (or 5 degrees F) is indicative of possible fog formation.

Reference: AC 00-6B

30. 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

31. 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

32. 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

33. B

A condition favorable for the rapid accumulation of clear icing is freezing rain below a frontal surface.

Reference: AC 00-6B

34. A

Wind direction always changes across a front.

Reference: AC 00-6B

35. 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

36. 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

37. 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"

38. 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-H-8083-1

39. B

The airfoil will stall if the critical angle of attack is exceeded.

Reference: FAA-H-8083-3

40. 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. The maximum range condition occurs where the proportion between speed and power required is greatest.

Reference: FAA-H-8083-25

41. 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

42. C

The manufacturer is the best source of performance data and information, if available.

Reference: FAA-H-8083-25

43. 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

44. C

Unmanned airplane performance can be decreased due to an increase in load factor when the airplane is operated in manoeuvres other than straight and level flight.

Reference: FAA-H-8083-25

45. 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 an 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

46. 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

47. A

Per §107.25, operating a drone from a moving vehicle is allowed over sparsely populated areas and when not carrying property for hire.

48. B

§107.25 allows operation from a moving vehicle only over sparsely populated areas, not carrying property for hire.

49. C

Category 2 operations prohibit exposed rotating parts capable of laceration and limit kinetic energy transfer to under 11 foot-pounds.

50. A

Category 1 drones must weigh under 0.55 lbs and must not have exposed rotating parts that could lacerate skin.

51. 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

52. 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

53. 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

54. 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

55. C

The preferred source of information is the manufacturer's guidance about the maintenance schedule and instructions.

Reference: AC 107-2

56. B

Remote PICs should monitor the appropriate aviation frequency, such as CTAF, during flight operations and make announcements concerning a sUAS operation as appropriate. Some a sUAS require the use of a 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

57. 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

58. B

The remote PIC is responsible for determining whether that aircraft is in condition for safe flight.

Reference: FAA-H-8083-25"

59. B

Hyperventilation is most likely to occur during a period of stress or anxiety

Reference: AIM 8-1-3

60. C

Most 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"

61. 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"

62. B

Most 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

63. 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

64. 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

65. A

Damaged batteries should never be used or charged. Lithium batteries 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

66. 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 the 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

67. B

Initial radio contact (also called initial call-up) is the first transmission made to an ATC facility or the first call to a different controller or Flight Service specialist within that facility. Per FAA guidance, the initial call should include: 1. Name of the facility being called 2. The full aircraft identification as filed in the flight plan (dropping the "N" prefix when stating the call sign) 3. Position information 4. The request or type of operation

The word "**over**" is generally omitted in standard ATC communications and is only used in limited situations, such as remote communication outlets.

Reference: AIM 4-2-3

68. C

The pilot is responsible for determining whether he or she is fit to fly for a particular flight.

Reference: FAA-H-8083-25

69. A

The fatigued pilot is impaired, and flying requires unimpaired judgment.

Reference: FAA-H-8083-2

70. A

During a flyaway event, a sUAS may not react as expected; thus, this is an emergency. The remote PIC should immediately communicate this emergency to crew members and ATC (if applicable), as well as any persons in the immediate area, 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