

PRACTICE EXAM 21

1. An aircraft used only for personal, non-commercial flight is required to have which inspection at least every 12 calendar months?

- A. A 100-hour inspection
- B. An annual inspection
- C. A progressive inspection only
- D. A preflight inspection by a mechanic

2. Preventive maintenance, such as replacing landing-gear tires, may be performed by:

- A. Only an FAA-certificated repair station
- B. Only the original aircraft manufacturer
- C. The certificated pilot who owns or operates the aircraft
- D. Any passenger aboard the aircraft

3. A 100-hour inspection is required when an aircraft is:

- A. Flown for any personal cross-country trip
- B. Equipped with a controllable-pitch propeller
- C. Owned jointly by more than one pilot
- D. Used for hire or for paid flight instruction

4. The 100-hour inspection limit may be exceeded by not more than 10 hours, but only:

- A. At the pilot's discretion for any reason
- B. If the aircraft is flown solely for personal use

- C. Up to twice in any 12-month period
- D. While en route to a place where the inspection can be done

5. Compliance with an applicable Airworthiness Directive is:

- A. Recommended at the owner's discretion
- B. Required only for aircraft operated for hire
- C. Mandatory, as ADs address unsafe conditions
- D. Optional unless the FAA inspects the aircraft

6. Under NTSB Part 830, which event requires immediate notification to the NTSB?

- A. A routine precautionary landing at an alternate airport
- B. A flat tire discovered during a postflight inspection
- C. An in-flight fire or flight control system malfunction
- D. A minor scratch to the paint during taxi

7. The documents remembered by the acronym ARROW must be:

- A. Carried in the pilot's personal possession
- B. Aboard the aircraft for it to be legally operated
- C. Filed with the local FSDO before each flight
- D. Memorized but not physically present

8. A static pressure system and altimeter inspection for IFR flight is required every:

- A. 24 calendar months
- B. 12 calendar months

- C. 6 calendar months
- D. 100 flight hours

9. A pilot may perform preventive maintenance but must:

- A. Make an entry in the maintenance record describing the work
- B. Obtain a ferry permit before the next flight
- C. Have the work re-inspected by the FAA within 30 days
- D. Hold a mechanic certificate to make the logbook entry

10. An aircraft's airworthiness certificate remains valid:

- A. For exactly 24 calendar months from issuance
- B. Only while the aircraft is operated for personal use
- C. For 12 months, after which it must be renewed
- D. As long as the aircraft is maintained per requirements

11. Who holds primary responsibility for ensuring an aircraft's maintenance records are in order and required inspections are current?

- A. The pilot's flight instructor
- B. The nearest FAA Flight Standards District Office
- C. The aircraft owner or operator
- D. The manufacturer of the airframe

12. A "required" placard or instrument marking in the cockpit is:

- A. Optional decoration with no regulatory force

- B. Required only for aircraft flown at night
- C. Part of the aircraft's airworthiness and must be legible
- D. Needed only when the aircraft is for hire

13. Under Part 830, the destruction of an aircraft or a fatal injury is classified as:

- A. An aircraft accident requiring NTSB notification
- B. A minor incident requiring only a logbook entry
- C. An event reportable only to the local FSDO
- D. A maintenance discrepancy handled by the owner

14. A pilot discovers the aircraft's annual inspection expired last week. The aircraft is:

- A. Legal to fly for personal use within a 10-hour grace period
- B. Not airworthy and may not be operated until inspected
- C. Legal if the pilot performs a thorough preflight
- D. Airworthy if flown only in the local pattern

15. The Airworthiness Directive system exists to:

- A. Correct unsafe conditions found in aircraft or components
- B. Recommend optional performance upgrades to owners
- C. Record routine preventive maintenance tasks
- D. Track the resale value of certificated aircraft

16. A pilot wishing to operate an aircraft after a major repair or alteration must ensure the work was:

- A. Performed by the pilot regardless of certification

- B. Logged but not necessarily approved
- C. Approved for return to service and properly documented
- D. Reported directly to the NTSB before flight

17. Which is an example of preventive maintenance a pilot-owner may legally perform?

- A. Overhauling the engine's internal components
- B. Replacing a structural wing spar
- C. Replenishing hydraulic fluid or servicing landing-gear tires
- D. Repairing the primary flight control cables

18. A transponder must be tested and inspected within the preceding:

- A. 6 calendar months
- B. 12 calendar months
- C. 100 flight hours
- D. 24 calendar months

19. The operating limitations that are part of the required aircraft documents may be found in:

- A. The pilot's personal logbook
- B. The approved flight manual, placards, and markings
- C. The local airport's published procedures
- D. The aircraft's bill of sale

20. A pilot finds the aircraft's registration certificate has expired. The aircraft:

- A. May be flown locally until convenient to renew

- B. May not be operated until the registration is current
- C. Is unaffected, as registration is not required aboard
- D. May fly if the airworthiness certificate is valid

21. Under Part 830, a pilot involved in a reportable accident must preserve:

- A. The aircraft wreckage and records pending NTSB release
- B. Only the pilot's personal logbook
- C. Nothing, once the flight has ended
- D. Only photographs of the scene

22. A 100-hour inspection and an annual inspection are similar in scope, but the annual must be signed off by:

- A. Any certificated private pilot
- B. A mechanic holding an Inspection Authorization
- C. The aircraft's registered owner
- D. A repairman with a sport-pilot rating

23. A pilot-owner performing preventive maintenance must use:

- A. Any tools and parts that physically fit the aircraft
- B. Only parts purchased from the original dealer
- C. Whatever materials are most economical
- D. Methods, techniques, and parts acceptable to the FAA

24. Which event would NOT, by itself, require immediate NTSB notification under Part 830?

- A. An in-flight fire

- B. A flight control system malfunction
- C. The death of a person aboard
- D. A routine diversion to an alternate due to weather

25. An aircraft's airworthiness depends on it being in a condition for safe operation AND:

- A. In conformity with its type certificate and applicable ADs
- B. Registered to a single owner only
- C. Flown exclusively during daylight hours
- D. Equipped with an autopilot system

26. The maintenance record entry for an inspection must include:

- A. The pilot's medical certificate number
- B. The next destination airport's identifier
- C. The aircraft's resale value estimate
- D. The date, aircraft time, and signature/certificate of the person approving return to service

27. A required instrument range marking, such as a red radial line on the airspeed indicator, denotes:

- A. The best rate-of-climb speed
- B. A never-exceed speed not to be passed
- C. The normal cruise operating range
- D. The recommended approach speed

28. Who may approve an aircraft for return to service after an annual inspection?

- A. The pilot in command before the next flight
- B. Any certificated flight instructor

C. A certificated private pilot who owns the aircraft

D. A mechanic holding an Inspection Authorization

29. A pilot planning night VFR (with the proper endorsement and medical) must ensure the aircraft has:

A. An autopilot and a second altimeter

B. A high-frequency long-range radio

C. The equipment required for night operations, such as position lights

D. A pressurization system for the cabin

30. Under Part 830, "substantial damage" that requires reporting generally means damage that:

A. Affects only the aircraft's paint or fairings

B. Adversely affects structural strength or flight characteristics

C. Can be repaired with simple preventive maintenance

D. Is limited to a single landing-gear tire

31. A pilot-owner who performs preventive maintenance improperly is:

A. Shielded from responsibility once the work is logged

B. Responsible, as the work must be done correctly and documented

C. Required only to notify the passengers of the work

D. Exempt from any consequence for personal-use aircraft

32. The ELT (emergency locator transmitter) battery must be replaced when the transmitter has been in use for more than a cumulative time, or when:

A. The aircraft changes ownership

- B. The annual inspection is overdue
- C. The pilot upgrades to a new certificate
- D. 50 percent of its useful life has expired

33. A pilot must verify that an applicable Airworthiness Directive has been complied with by checking the:

- A. Sectional chart legend
- B. Pilot's operating handbook cover page
- C. Aircraft's registration certificate
- D. Maintenance records for the AD compliance entry

34. Which inspection interval applies to an aircraft used in flight instruction for hire?

- A. Both an annual and a 100-hour inspection
- B. An annual inspection only
- C. A 100-hour inspection only
- D. A preflight inspection in place of both

35. A pilot finds a required placard in the cockpit has become illegible. The correct action is to:

- A. Disregard it, since placards are advisory
- B. Cover it with tape until the next flight
- C. Have it restored before considering the aircraft airworthy
- D. Replace it personally with a handwritten note in flight

36. Under Part 830, an "incident" differs from an "accident" in that an incident:

- A. Always involves a fatality

- B. Requires immediate notification in every case
- C. Is an occurrence other than an accident that affects safety
- D. Always results in substantial aircraft damage

37. The responsibility for determining that an aircraft is airworthy before flight rests with the:

- A. Pilot in command
- B. Last mechanic to service the aircraft
- C. Air traffic control facility
- D. Aircraft manufacturer

38. A pilot-owner may NOT legally perform which of the following?

- A. A major repair to the engine's internal components
- B. Replacing a landing-gear tire
- C. Servicing the landing-gear shock struts with fluid
- D. Replacing a defective safety wire or cotter key

39. An aircraft's required maintenance records must be retained and made available to:

- A. Any pilot who requests them for any reason
- B. The FAA or NTSB upon request
- C. Only the original purchasing dealer
- D. The local airport management office

40. A pilot preparing for flight must confirm that the aircraft's inspections are current by:

- A. Reviewing the maintenance records for inspection entries

- B. Visually inspecting only the exterior of the aircraft
- C. Assuming currency if the aircraft flew recently
- D. Contacting the manufacturer for confirmation

ANSWER KEY WITH EXPLANATIONS

1. B — An annual inspection. Every certificated aircraft must have an annual inspection at least once each 12 calendar months. Personal-use aircraft need only this, not a 100-hour.
2. C — The certificated pilot who owns or operates the aircraft. A pilot who owns or operates the aircraft may perform listed preventive maintenance, such as replacing tires. A repair station or manufacturer is not required for these simple tasks.
3. D — Used for hire or for paid flight instruction. The 100-hour inspection applies to aircraft flown for hire or used for paid instruction, in addition to the annual. Personal aircraft are exempt from it.
4. D — While en route to a place where the inspection can be done. The 100-hour limit may be exceeded by up to 10 hours only while flying to a location where the inspection will be performed. The excess time is then deducted from the next interval.
5. C — Mandatory, as ADs address unsafe conditions. AD compliance is mandatory because ADs correct unsafe conditions; an overdue AD makes the aircraft unairworthy. It is not optional or commercial-only.
6. C — An in-flight fire or flight control system malfunction. Part 830 requires immediate NTSB notification for serious events such as an in-flight fire or flight control malfunction. Routine diversions and minor cosmetic damage are not reportable.
7. B — Aboard the aircraft for it to be legally operated. The ARROW documents (Airworthiness, Registration, Radio license, Operating limitations, Weight and balance) must be aboard for legal operation. They are not pilot-carried or pre-filed.

8. A — 24 calendar months. The static pressure system and altimeter inspection for IFR is required every 24 calendar months. This is a commonly tested interval.

9. A — Make an entry in the maintenance record describing the work. A pilot performing preventive maintenance must record the work in the maintenance record. No ferry permit, FAA re-inspection, or mechanic certificate is required for the entry.

10. D — As long as the aircraft is maintained per requirements. An airworthiness certificate remains valid as long as the aircraft is maintained and inspected per requirements. It does not expire on a fixed calendar like the registration.

11. C — The aircraft owner or operator. The owner or operator holds primary responsibility for keeping maintenance records in order and inspections current. The PIC then confirms airworthiness before flight.

12. C — Part of the aircraft's airworthiness and must be legible. Required placards and markings are part of the aircraft's airworthiness and must be present and legible. They are not optional or limited to night or commercial flight.

13. A — An aircraft accident requiring NTSB notification. Destruction of an aircraft or a fatal/serious injury constitutes an accident requiring NTSB notification under Part 830. It is more than a logbook discrepancy.

14. B — Not airworthy and may not be operated until inspected. An aircraft with a lapsed annual is unairworthy and may not be flown until inspected; the annual has no grace period and a thorough preflight does not substitute. The flight must wait.

15. A — Correct unsafe conditions found in aircraft or components. The AD system corrects unsafe conditions discovered in aircraft or components. It is not for optional upgrades or routine recordkeeping.

16. C — Approved for return to service and properly documented. After a major repair or alteration, the work must be approved for return to service and documented before the aircraft is flown. Logging alone, without approval, is insufficient.

17. C — Replenishing hydraulic fluid or servicing landing-gear tires. Replenishing hydraulic fluid and servicing tires are listed preventive-maintenance items a pilot-owner may perform. Overhauls, spar replacement, and control-cable repair are major work for a mechanic.

18. D — 24 calendar months. A transponder must be tested and inspected within the preceding 24 calendar months. This parallels the static/altimeter check interval.

19. B — The approved flight manual, placards, and markings. Operating limitations are found in the approved flight manual together with placards and instrument markings. They are not in the logbook or bill of sale.

20. B — May not be operated until the registration is current. An aircraft with an expired registration may not be operated until it is renewed, and the registration must be aboard. A valid airworthiness certificate does not cure this.

21. A — The aircraft wreckage and records pending NTSB release. After a reportable accident, the operator must preserve the wreckage and records until the NTSB releases them. This protects the investigation.

22. B — A mechanic holding an Inspection Authorization. An annual inspection must be signed off by a mechanic holding an Inspection Authorization (IA). A 100-hour may be done by an A&P without IA, which is the key difference.

23. D — Methods, techniques, and parts acceptable to the FAA. Preventive maintenance must use methods, techniques, and parts acceptable to the FAA. Convenience, cost, or fit alone does not satisfy the standard.

24. D — A routine diversion to an alternate due to weather. A routine weather diversion is not, by itself, a reportable Part 830 event. In-flight fire, control malfunction, and a death aboard all require notification.

25. A — In conformity with its type certificate and applicable ADs. Airworthiness requires the aircraft to be in safe condition AND in conformity with its type certificate and applicable ADs. Single ownership, daylight-only, or an autopilot is not part of the definition.

26. D — The date, aircraft time, and signature/certificate of the person approving return to service. An inspection record entry must include the date, aircraft time in service, and the signature and certificate number of the person approving return to service. Medical numbers and resale values are irrelevant.

27. B — A never-exceed speed not to be passed. A red radial line on the airspeed indicator marks V_{NE}, the never-exceed speed. Best-climb and cruise speeds use other markings.

28. D — A mechanic holding an Inspection Authorization. Approval for return to service after an annual requires a mechanic holding an Inspection Authorization. A pilot, instructor, or owner without an IA cannot sign it off.

29. C — The equipment required for night operations, such as position lights. Night operations require the aircraft to have the equipment specified for night flight, such as position lights and an anti-collision light. An autopilot, HF radio, or pressurization is not required.

30. B — Adversely affects structural strength or flight characteristics. Under Part 830, substantial damage adversely affects structural strength, performance, or flight characteristics. Minor cosmetic damage or a single tire does not qualify.

31. B — Responsible, as the work must be done correctly and documented. A pilot-owner remains responsible for preventive maintenance being done correctly and documented; logging does not shield improper work. Personal use does not exempt the responsibility.

32. D — 50 percent of its useful life has expired. The ELT battery must be replaced after the transmitter's cumulative use exceeds one hour or when 50 percent of the battery's useful life has expired. Ownership changes and certificate upgrades are irrelevant.

33. D — Maintenance records for the AD compliance entry. AD compliance is verified by checking the maintenance records for the compliance entry. The chart legend, POH cover, and registration do not show AD status.

34. A — Both an annual and a 100-hour inspection. An aircraft used for paid flight instruction requires both an annual and a 100-hour inspection. Personal aircraft need only the annual.

35. C — Have it restored before considering the aircraft airworthy. An illegible required placard must be restored before the aircraft is considered airworthy. Disregarding it or improvising in flight is not acceptable.

36. C — Is an occurrence other than an accident that affects safety. Under Part 830, an incident is an occurrence other than an accident that affects or could affect safety. It does not necessarily involve a fatality or substantial damage.

37. A — Pilot in command. The PIC is responsible for determining the aircraft is airworthy before flight, even though the owner maintains it. Both responsibilities coexist.

38. A — A major repair to the engine's internal components. A major engine repair is beyond preventive maintenance and requires a certificated mechanic; a pilot-owner may not perform it. Tire, strut-fluid, and safety-wire tasks are permitted preventive maintenance.

39. B — The FAA or NTSB upon request. Required maintenance records must be retained and made available to the FAA or NTSB upon request. They are not owed to any pilot, dealer, or airport office on demand.

40. A — Reviewing the maintenance records for inspection entries. Inspection currency is confirmed by reviewing the maintenance records for the inspection entries. A visual exterior check or an assumption from recent flight does not verify currency.