

PRACTICE EXAM 13: FAA IA KNOWLEDGE TEST SIMULATION

Practice Exam 13 — Questions 1 through 50

1. An IA is preparing to return an aircraft to service after an annual inspection. Before signing the Block 7 approval, the IA must have completed all of the following except:

- A. Records review of aircraft and components
- B. Flight test of the aircraft in all operational modes
- C. Physical inspection per Part 43 Appendix D
- D. Engine run-up per § 43.15(c)

2. Under 14 CFR § 43.9(a), the maintenance record entry for work returning the aircraft to service must include:

- A. The manufacturer's approved part number for installed components
- B. The aircraft's certificate of registration reference number
- C. The aircraft owner's agreement with the work performed
- D. Description of work, completion date, and signature with certificate number

3. A mechanic is inspecting an aircraft's weight and balance record after an alteration. The current empty weight is 1,625 pounds with an empty moment of 122,725 in-lb. The empty CG is:

- A. 75.5 inches
- B. 76.5 inches

- C. 77.5 inches
- D. 74.5 inches

4. Under AC 43.13-1B Chapter 11, the primary function of bonding for an antenna installation is to:

- A. Reduce the aircraft's electrical power consumption
- B. Simplify the installation procedure for the antenna
- C. Ensure RF performance and lightning protection
- D. Prevent corrosion of the antenna mounting hardware

5. The IA's verification that an STC applies to the specific aircraft being inspected includes confirmation of:

- A. The owner's training completion for the modified aircraft
- B. The aircraft's serial number within the Approved Model List
- C. The installing mechanic's qualification for the installation
- D. The STC holder's warranty coverage for the modification

6. An IA has inspected an aircraft and determined it unairworthy. Under § 43.11(b), the IA must provide the owner with:

- A. A dated and signed list of discrepancies and unairworthy items
- B. An estimated cost for each required corrective action
- C. A directory of qualified mechanics for the corrections
- D. A specific timeline for completion of corrective work

7. Under 14 CFR § 91.417(b)(2), records of which of the following must be retained permanently and transferred with the aircraft?

- A. The aircraft owner's fuel purchase records
- B. The mechanic's quarterly billing invoices
- C. The aircraft's monthly operational flight logs
- D. Life-limited parts status and total time in service

8. A Form 337 has been completed for a major repair. The form must be distributed in which pattern?

- A. Single copy retained by the mechanic performing the work
- B. Two copies to the aircraft owner for records
- C. One copy to the FAA Aircraft Registry within 48 hours
- D. Four copies distributed to owner, mechanic, FSDO, and insurance

9. Under AC 43.13-1B Chapter 6, the form of corrosion that attacks grain boundaries without necessarily showing external signs is:

- A. Intergranular corrosion
- B. Filiform corrosion
- C. Galvanic corrosion
- D. Exfoliation corrosion

10. A recurring airworthiness directive was complied with at aircraft time 1,925 hours. The AD requires recurring compliance every 125 hours. The next compliance is due at aircraft time:

- A. 1,975 hours
- B. 2,000 hours

- C. 2,025 hours
- D. 2,050 hours

11. An IA is inspecting an aircraft's control system and finds a flight control cable with tension measured at 37 pounds. The manufacturer specifies 40 ± 5 pounds. The cable:

- A. Is above the maximum tolerance range
- B. Is outside the acceptable tolerance range
- C. Is within the tolerance range
- D. Requires immediate cable replacement

12. Under 14 CFR § 43.3(d), approval for return to service after a major repair on a Part 91 aircraft may be granted by:

- A. The holder of an Inspection Authorization
- B. A pilot holding commercial privileges only
- C. Any certificated mechanic with appropriate rating
- D. A Designated Engineering Representative exclusively

13. A mechanic installing a PMA replacement part on an aircraft must verify that:

- A. The part matches the original manufacturer's commercial specifications
- B. The part's warranty period exceeds one year
- C. The part is approved for any aircraft of similar category
- D. The PMA approval applies to the specific aircraft application

14. The FAA Dynamic Regulatory System is used by the IA primarily for:

- A. Submission of Form 337 documentation electronically
- B. Research of airworthiness directives applicable to aircraft
- C. Registration of aircraft with the Aircraft Registry
- D. Issuance of special flight permits for ferry flights

15. Under 14 CFR § 65.95(a)(1), the IA may approve major repairs and major alterations for return to service on aircraft under:

- A. Part 121 continuous airworthiness programs
- B. Part 127 commercial maintenance programs
- C. Part 91 general aviation operating rules
- D. Part 135 on-demand commercial operations with FSDO oversight

16. An aircraft is subject to an emergency AD requiring compliance before further flight. The aircraft is currently in a hangar. The correct regulatory status is:

- A. Unairworthy under § 39.9 until AD compliance is accomplished
- B. Airworthy pending scheduled flight for compliance work
- C. Acceptable if the aircraft remains hangared without operation
- D. Acceptable under emergency operating accommodations

17. Under AC 43.13-1B Chapter 4, the minimum pitch (spacing) between rivets in a sheet metal repair is typically:

- A. 1.5 times the fastener diameter
- B. 2 times the fastener diameter

- C. 4 times the fastener diameter
- D. 3 times the fastener diameter

18. An IA is reviewing Form 337 documentation and finds that Block 6 contains the performer's conformity statement but lacks the performer's signature. The Form 337:

- A. Is acceptable because Block 6 is informational only
- B. Is incomplete because the performer's signature is required
- C. Is acceptable if Block 7 IA signature is present
- D. Is valid for the aircraft's return to service approval

19. Under § 91.203(b), the airworthiness certificate must be displayed:

- A. On the aircraft's exterior fuselage in a prominent location
- B. In the mechanic's maintenance records for the aircraft
- C. At the cabin or cockpit entrance legible to passengers
- D. In the aircraft insurance policy documentation

20. An IA is inspecting an aircraft's propeller and finds a 0.5-inch-deep nick within the manufacturer's dressing limits. The appropriate action is:

- A. Dress the damage per manufacturer guidance
- B. Replace the propeller before return to service
- C. Apply a protective coating to the damaged area
- D. Document the damage for the next inspection

21. Under 14 CFR § 43.11(a), the inspection record entry for an airworthy annual inspection must state that the aircraft:

- A. Has been inspected and determined to be in airworthy condition
- B. Is approved for commercial passenger service operations
- C. Has completed all scheduled manufacturer-recommended work
- D. Has been cleared by the local FSDO for the operation

22. A Type Certificate Data Sheet for an aircraft specifies the approved fuel grade. An aircraft has been fueled with a grade below the TCDS specification. The condition represents:

- A. Acceptable operation under the fuel's similar octane rating
- B. Acceptable if the pilot adjusts power settings accordingly
- C. A non-conformity to the approved type design
- D. Not addressed by the TCDS fuel specification

23. Under 14 CFR § 65.91(c), an applicant for Inspection Authorization must have:

- A. A repair station certificate issued in the preceding 12 months
- B. Employment at a certified Part 145 repair station
- C. Completion of an approved aviation technician course
- D. An A&P certificate with both ratings in effect for at least 3 years

24. An IA performs a pre-inspection records review and verifies:

- A. The owner's insurance policy coverage and renewal
- B. The airworthiness certificate and required periodic inspections
- C. The aircraft's fuel purchase records and consumption data

D. The pilot's personal logbook for the specific aircraft

25. Under § 43.15(c), the aircraft engine must be run during an annual or 100-hour inspection at what point?

A. At the end of the inspection to verify performance

B. At the beginning of the inspection to warm the system

C. At the midpoint for intermediate verification

D. As determined by the mechanic's professional discretion

26. A Special Flight Permit under § 21.197 may be issued for an aircraft that:

A. Operates under commercial transport certification

B. Has been recently sold and awaits new registration

C. Meets all airworthiness requirements with good records

D. Does not meet airworthiness requirements but is capable of safe flight

27. The IA's annual inspection includes verification of airworthiness directive compliance. This requirement derives from:

A. 14 CFR § 65.91 IA eligibility requirements

B. 14 CFR § 91.403 operator airworthiness responsibility

C. 14 CFR § 43.15 additional performance rules for inspections

D. 14 CFR § 43.9 maintenance record requirements

28. Under 14 CFR § 91.207(d), the ELT inspection must be performed within the preceding:

A. 24 calendar months

- B. 12 calendar months
- C. 6 calendar months
- D. 18 calendar months

29. An IA is inspecting an aircraft's fuel system and finds water in the fuel tank sump drains. The appropriate action is:

- A. Drain the water and continue sumping until fuel is water-free
- B. Document the condition for the next inspection
- C. Apply fuel additive to address the contamination
- D. Note in the pilot's operating handbook

30. Under § 43.9(a)(3), the maintenance record entry must include the name of the person performing the work if different from:

- A. The aircraft's certified insurance carrier or policy holder
- B. The employee of the aircraft's original manufacturer
- C. The mechanic's IA certificate holder of record
- D. The person approving the aircraft for return to service

31. A Supplemental Type Certificate includes an Approved Model List that:

- A. Identifies the dealer network authorized to sell the STC
- B. Specifies the warranty coverage period for the modification
- C. Documents the STC holder's licensing arrangements
- D. Identifies the specific aircraft eligible for the STC

32. An IA is inspecting a landing gear strut and finds evidence of internal corrosion. The condition affects:

- A. The aircraft's certificate of registration validity
- B. The aircraft's condition for safe operation
- C. The pilot's medical certificate currency
- D. The aircraft's commercial operator certificate

33. Under AC 43.13-1B Chapter 7, flight control cable tension must be measured:

- A. At manufacturer-specified temperatures with a tensiometer
- B. At ambient temperature without temperature adjustment
- C. With the mechanic's professional judgment of conditions
- D. At operating temperature during actual flight conditions

34. The IA's Form 337 Block 7 signature represents:

- A. A warranty of the installed equipment's performance
- B. An appraisal of the aircraft's market value increase
- C. The IA's determination that work conforms to approved data
- D. A guarantee of the modification's operational reliability

35. Under 14 CFR § 91.409(a), an aircraft operated under Part 91 must have had an annual inspection within the preceding:

- A. 6 calendar months
- B. 18 calendar months
- C. 24 calendar months

D. 12 calendar months

36. An IA is inspecting an ELT under § 91.207(d) and must verify:

- A. Installation, battery condition, controls, and signal transmission
- B. Compatibility with the aircraft's transponder system
- C. Performance on all ATC radar frequencies
- D. Manufacturing date and warranty coverage

37. The aircraft's empty weight increased by 14.5 pounds after an alteration at station 45.0 inches. The moment change is:

- A. +580 in-lb
- B. +652.5 in-lb
- C. +725 in-lb
- D. +800 in-lb

38. Under § 43.9(a)(2), the maintenance record entry must include:

- A. The aircraft owner's commercial pilot rating status
- B. The mechanic's hourly labor rate for the work
- C. The aircraft's fuel consumption during operations
- D. The date of completion of the work

39. An IA is inspecting an aircraft with multiple STCs. The IA should:

- A. Accept each STC as independent without compatibility review

- B. Focus only on the most recent STC installation
- C. Evaluate combined STC installations for continued approval
- D. Remove older STCs to simplify the configuration

40. Under 14 CFR § 43.7(g), approval for return to service after an annual inspection must be granted by:

- A. The holder of an Inspection Authorization
- B. An A&P mechanic with airframe rating
- C. An A&P mechanic with powerplant rating
- D. A Designated Engineering Representative

41. The FAA Computer Testing Supplement FAA-CT-8080-8D provides:

- A. A searchable database of all current FAA regulations
- B. A certificate of course completion for IA candidates
- C. Reference materials for regulations, ADs, and TCDS questions
- D. Contact information for FAA officials and inspectors

42. An aircraft has an empty weight of 1,475 pounds and empty moment of 110,625 in-lb. An alteration removes 10 pounds at station 42.0 inches. The new empty weight is:

- A. 1,465 pounds
- B. 1,470 pounds
- C. 1,485 pounds
- D. 1,475 pounds

43. Under § 91.417(b)(1), records of ordinary maintenance must be retained until:

- A. Permanently in the aircraft's maintenance file
- B. 10 years from the work completion date
- C. The next annual inspection is completed
- D. Superseded by other work or one year, whichever is first

44. A mechanic is performing an alteration by welding a component to the fuselage structure. The work is:

- A. Preventive maintenance under § 43.3(g)
- B. Major alteration requiring approved data and IA approval
- C. Minor alteration within mechanic authority
- D. Routine maintenance not requiring documentation

45. The IA must verify that an aircraft's ATC transponder test has been performed within the preceding 24 calendar months. This requirement is established by:

- A. 14 CFR § 91.207(d) ELT inspection
- B. 14 CFR § 91.411 altimeter system inspection
- C. 14 CFR § 91.413 ATC transponder test
- D. 14 CFR § 91.417 aircraft maintenance records

46. Under AC 43.13-1B Chapter 6, the form of corrosion characterized by visible lifting or flaking of the metal surface layers is:

- A. Pitting corrosion
- B. Filiform corrosion

- C. Galvanic corrosion
- D. Exfoliation corrosion

47. An IA has determined that an aircraft is airworthy after an annual inspection. The aircraft may be operated:

- A. Per its approved operating limitations
- B. Under commercial passenger service regulations
- C. In IFR operations regardless of periodic test currency
- D. In night operations without additional equipment verification

48. Under 14 CFR § 65.93, a qualifying IA renewal activity is:

- A. Completing recurrent flight training in aircraft type
- B. Performing annual inspections per 90-day period held
- C. Maintaining a current airman medical certificate
- D. Paying the annual IA renewal fee on schedule

49. A mechanic is reviewing aircraft records and discovers a Form 337 for a major alteration that was performed 5 years ago. The Form 337 Block 8 description reads only "Equipment installed." The description:

- A. Is acceptable for historical record purposes
- B. Meets AC 43.9-1E standards for minor alterations
- C. Is adequate if the work was properly performed
- D. Is inadequate and raises a documentation concern

50. Under Part 43 Appendix A paragraph (c), a certificated pilot may perform which category of work?

A. Major alteration using approved data

B. Preventive maintenance as listed

C. Major repair with IA approval

D. Structural welding repair

PRACTICE EXAM 13: ANSWER KEY AND EXPLANATIONS

1. B — Flight test of the aircraft in all operational modes. The annual inspection sequence requires records review, physical inspection per Appendix D, and engine run-up per § 43.15(c). A flight test is not a regulatory element of the annual inspection; § 43.15(c) requires only the engine run-up for satisfactory performance verification.
2. D — Description of work, completion date, and signature with certificate number. Section 43.9(a) requires the maintenance record entry to include description of work, date of completion, and signature with certificate number of the approving person. Manufacturer part numbers, registration references, and owner agreements are not regulatory requirements.
3. A — 75.5 inches. Empty CG is calculated as empty moment divided by empty weight: $122,725 \div 1,625 = 75.52$, which rounds to 75.5 inches. This basic computation produces the empty CG for the weight and balance record.
4. C — Ensure RF performance and lightning protection. AC 43.13-1B Chapter 11 establishes that bonding at antenna installations is critical for RF performance (the airframe acts as counterpoise) and for lightning protection of the installation. Power consumption, installation procedures, and hardware corrosion are not the primary bonding functions.
5. B — The aircraft's serial number within the Approved Model List. The IA's STC verification confirms that the specific aircraft's make, model, and serial number fall within the STC's Approved Model List. Owner training, installer qualification, and warranty coverage are not regulatory verification elements.
6. A — A dated and signed list of discrepancies and unairworthy items. Section 43.11(b) specifically requires the IA to provide the owner with a dated and signed list of discrepancies and unairworthy items. Cost estimates, mechanic directories, and completion timelines are not regulatory elements.
7. D — Life-limited parts status and total time in service. Section 91.417(b)(2) requires permanent retention of life-limited parts status, total time in service, AD compliance, and Form 337 records. Fuel records, billing invoices, and flight logs are not permanent records.
8. C — One copy to the FAA Aircraft Registry within 48 hours. Part 43 Appendix B requires Form 337 to be forwarded to the FAA Aircraft Registry within 48 hours after return to service. Additional copies are distributed to the aircraft owner and retained by the mechanic, but the Registry copy is the specific regulatory submission requirement.

9. A — Intergranular corrosion. AC 43.13-1B Chapter 6 describes intergranular corrosion as attack along grain boundaries of the metal, progressively weakening the structure without necessarily showing external signs. This hidden progression makes intergranular corrosion particularly consequential.
10. D — 2,050 hours. The next compliance is calculated by adding the recurring interval to the last compliance time: $1,925 + 125 = 2,050$ hours. Simple addition of the recurring interval produces the next-due time for any recurring AD.
11. C — Is within the tolerance range. A measured tension of 37 pounds falls within the specified range of 40 ± 5 pounds (35 to 45 pounds). The measurement is at the lower end of the tolerance but within acceptable limits. Tension specifications establish both minimum and maximum bounds.
12. A — The holder of an Inspection Authorization. Section 43.7(b) establishes that approval for return to service after major repairs on Part 91 aircraft is exclusive to the IA. A&P mechanics without IA privileges, pilots, and DERs cannot approve major repairs.
13. D — The PMA approval applies to the specific aircraft application. PMA approval is issued for specific aircraft, engines, propellers, or appliances on which the part is eligible for installation. The approval is aircraft-specific and does not automatically transfer between aircraft categories or applications.
14. B — Research of airworthiness directives applicable to aircraft. The FAA Dynamic Regulatory System (DRS) is the FAA's online portal for researching current and historical airworthiness directives. Form 337 submission, aircraft registration, and special flight permit issuance are separate processes handled through different systems.
15. C — Part 91 general aviation operating rules. Section 65.95(a)(1) prohibits IA approval for aircraft under continuous airworthiness programs under Part 121 or 127. Part 91 aircraft — general aviation aircraft — are within the IA's scope of authority.
16. A — Unairworthy under § 39.9 until AD compliance is accomplished. Section 39.9 establishes that an aircraft subject to an AD that has not been complied with is unairworthy. The aircraft's physical location (hangar, ramp, or in flight) does not change its regulatory status; the AD compliance obligation applies regardless of whether the aircraft is currently operating.
17. D — 3 times the fastener diameter. AC 43.13-1B Chapter 4 establishes minimum fastener pitch (the distance between fastener centers) as typically $3 \times$ the fastener diameter. This spacing prevents stress concentration and maintains the structural integrity of sheet metal repairs.
18. B — Is incomplete because the performer's signature is required. Form 337 Block 6 requires the performer's conformity statement and signature. A conformity statement without a signature does not complete Block 6; the Form 337 cannot be accepted as complete regardless of other block completeness.

19. C — At the cabin or cockpit entrance legible to passengers. Section 91.203(b) specifies the airworthiness certificate display location — at the cabin or cockpit entrance legible to passengers or crew. Exterior fuselage, maintenance records, and insurance documentation are not the regulatory display locations.
20. A — Dress the damage per manufacturer guidance. A nick within manufacturer dressing limits is addressed by dressing the damage per manufacturer guidance. Replacement is not required for within-limits damage; protective coatings, documentation, and scheduling are not appropriate responses to correctable damage.
21. A — Has been inspected and determined to be in airworthy condition. Section 43.11(a) requires the entry to state that the aircraft has been inspected in accordance with the applicable inspection and was determined to be in airworthy condition. This specific language is required — commercial authorization, manufacturer completion, and FSDO clearance are not the certification statements.
22. C — A non-conformity to the approved type design. The TCDS specifies the minimum fuel grade required for operation. Use of a lower-grade fuel violates the approved type design. The non-conformity classification applies regardless of similar octane ratings, power setting management, or operational outcome.
23. D — An A&P certificate with both ratings in effect for at least 3 years. Section 65.91(c)(1) requires the applicant to hold an A&P certificate with both airframe and powerplant ratings in effect for at least three years. Repair station certificates, employment requirements, and course completions are not the specific regulatory requirement.
24. B — The airworthiness certificate and required periodic inspections. The IA's records review verifies the airworthiness certificate, registration, and currency of required periodic inspections (altimeter, transponder, ELT). Owner insurance, fuel records, and pilot logs are not part of the regulatory records review.
25. A — At the end of the inspection to verify performance. Section 43.15(c) specifically requires the engine to be run at the end of the inspection to determine satisfactory performance per manufacturer recommendations. The timing is regulatory — running at other points does not satisfy the requirement.
26. D — Does not meet airworthiness requirements but is capable of safe flight. Special flight permits under § 21.197 are issued for aircraft that do not meet airworthiness requirements but are capable of safe flight for a specific purpose. The permit is specifically for aircraft that fail to meet airworthiness requirements, not those operating commercially or with good records.
27. C — 14 CFR § 43.15 additional performance rules for inspections. Section 43.15 requires the person performing the inspection to determine that the aircraft meets all applicable airworthiness requirements, including any AD applicable to the aircraft. This is the direct regulatory basis for AD verification during inspection.

28. B — 12 calendar months. Section 91.207(d) requires ELT inspection within 12 calendar months. The inspection covers installation, battery condition, operation of controls and crash sensor, and signal transmission verification.
29. A — Drain the water and continue sumping until fuel is water-free. Water contamination in fuel tank sumps is addressed by draining the water and continuing to sump until fuel is water-free. This standard procedure addresses the fuel contamination directly; documentation, additives, and notation are not substitutes for removing water.
30. D — The person approving the aircraft for return to service. Section 43.9(a)(3) requires the maintenance record to include the performer's name when different from the approving person. This creates the documentation link between performer and approver when different individuals.
31. D — Identifies the specific aircraft eligible for the STC. The Approved Model List identifies the specific aircraft (by make, model, and serial number range) eligible for the STC. Dealer networks, warranty coverage, and licensing arrangements are commercial matters not addressed by the AML.
32. B — The aircraft's condition for safe operation. Internal corrosion affecting a structural member affects the aircraft's condition for safe operation — the second element of the airworthiness definition. It does not affect the registration certificate, pilot certification, or operator certificate directly.
33. A — At manufacturer-specified temperatures with a tensiometer. AC 43.13-1B Chapter 7 requires cable tension to be measured at manufacturer-specified temperatures using a tensiometer. Ambient conditions, mechanic judgment, and operating temperature are not the regulatory measurement standards.
34. C — The IA's determination that work conforms to approved data. The IA's Block 7 signature represents the regulatory determination that the work was accomplished in accordance with the approved data. It is not a warranty, market appraisal, or reliability guarantee.
35. D — 12 calendar months. Section 91.409(a) requires annual inspection within the preceding 12 calendar months for Part 91 operation. This is the specific regulatory interval for annual inspection currency.
36. A — Installation, battery condition, controls, and signal transmission. Section 91.207(d) specifies the ELT inspection elements: proper installation, battery condition, operation of controls and crash sensor, and presence of sufficient signal radiated from the antenna. Transponder compatibility, ATC radar frequencies, and manufacturing dates are not regulatory elements.
37. B — +652.5 in-lb. The moment change is weight multiplied by arm: $14.5 \times 45.0 = 652.5$ in-lb. Simple multiplication of weight and arm produces the moment change for any weight and balance revision.

38. D — The date of completion of the work. Section 43.9(a)(2) specifically requires the entry to include the date of completion of the work. Pilot ratings, labor rates, and fuel consumption are not required elements.
39. C — Evaluate combined STC installations for continued approval. Multiple STCs on a single aircraft may create configurations that no individual STC specifically approved. The IA evaluates combined STC compatibility and whether the integrated installation remains supported by approved data.
40. A — The holder of an Inspection Authorization. Section 43.7(g) specifically assigns return-to-service approval for annual inspections exclusively to IA holders. A&P mechanics without IA privileges, DERs, and FSDO inspectors cannot approve annual inspections.
41. C — Reference materials for regulations, ADs, and TCDS questions. FAA-CT-8080-8D contains curated regulatory excerpts, sample ADs, and TCDS references used as reference material during the IA Knowledge Test. Complete regulation databases, course certificates, and FAA contact information are not included.
42. A — 1,465 pounds. The new empty weight is calculated by subtracting the removed weight from the prior empty weight: $1,475 - 10 = 1,465$ pounds. Weight changes are applied by subtraction for removal and addition for installation.
43. D — Superseded by other work or one year, whichever is first. Section 91.417(b)(1) establishes that ordinary maintenance records must be retained until the work is repeated or superseded by other work, or for one year, whichever occurs first. Permanent retention, 10-year retention, and annual-inspection-based retention are not the default standards.
44. B — Major alteration requiring approved data and IA approval. Welding of components to fuselage structure is specifically listed in Part 43 Appendix A paragraph (a) as a major alteration. Major alterations require approved data, Form 337 documentation, and IA approval.
45. C — 14 CFR § 91.413 ATC transponder test. Section 91.413 requires ATC transponder testing within the preceding 24 calendar months. Section 91.207(d) addresses ELT inspection; § 91.411 addresses altimeter inspection; § 91.417 addresses maintenance records generally.
46. D — Exfoliation corrosion. AC 43.13-1B Chapter 6 describes exfoliation corrosion as producing visible lifting or flaking of surface layers. It is a form of intergranular corrosion manifesting with distinctive layered, flaking appearance — distinguishing it from pitting, filiform, and galvanic corrosion.
47. A — Per its approved operating limitations. An airworthy aircraft may be operated per its approved operating limitations, documented in the flight manual and flight manual supplements. Commercial service, IFR operations without currency, and night operations without equipment verification are not automatic authorizations of airworthy status.

48. B — Performing annual inspections per 90-day period held. Section 65.93 lists five alternative renewal activities, including performing annual inspections in rough proportion to the time the authorization has been held. Recurrent training, medical certificates, and renewal fees are not IA renewal activities.
49. D — Is inadequate and raises a documentation concern. AC 43.9-1E requires Block 8 to describe the work with sufficient specificity that a future mechanic can verify conformity. "Equipment installed" lacks the STC number, revision, installation details, and equipment identification — the description is inadequate.
50. B — Preventive maintenance as listed. Section 43.3(g) authorizes certificated pilots to perform preventive maintenance on their own aircraft, limited to the specific items listed in Part 43 Appendix A paragraph (c). Major alterations, major repairs, and structural welding are not within pilot-owner authority.