

# PRACTICE EXAM 10: FAA IA KNOWLEDGE TEST SIMULATION

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## Practice Exam 10 — Questions 1 through 50

1. An IA is reviewing records and finds a Form 337 for a major alteration that occurred 5 years ago. The Form 337 references an STC but lists no STC number. The document is:

- A. Acceptable because the STC reference is implied in the description
- B. Acceptable for historical record purposes
- C. Acceptable if the work was properly performed
- D. Inadequate and raises a regulatory documentation concern

2. Under § 43.7(a), approval for return to service after maintenance on an aircraft may be granted by which person?

- A. A pilot holding a commercial pilot certificate
- B. A certificated mechanic with appropriate rating
- C. The aircraft's owner acting in a personal capacity
- D. An officer of the Federal Aviation Administration

3. A recurring airworthiness directive has been complied with at aircraft total time 2,500 hours. The AD requires recurring compliance every 150 hours. The next compliance is due at aircraft total time:

- A. 2,650 hours
- B. 2,700 hours

- C. 2,750 hours
- D. 2,800 hours

4. Under 14 CFR § 91.417(a)(2), records of major alterations that must be retained permanently with the aircraft include:

- A. The owner's monthly flight log of operational time
- B. The mechanic's billing records for the work performed
- C. The Form 337 documentation for the alteration
- D. The local FSDO's inspection observation reports

5. An IA verifying an STC installation finds the STC data package is at Revision A, but the current document at the STC holder is Revision B. The IA's action is:

- A. Determine whether Revision B changes the existing installation
- B. Require immediate upgrade to Revision B before return to service
- C. Accept the installation as performed under Revision A
- D. File a new Form 337 referencing the revised document

6. The FAA-CT-8080-8D Computer Testing Supplement provides what to the IA Knowledge Test applicant?

- A. A searchable database of all current FAA regulations
- B. Reference material for questions on regulations, ADs, and TCDS
- C. A certificate of completion for the IA course
- D. A directory of Designated Engineering Representatives

7. An aircraft is subject to an AD applicable to the installed magneto. The AD specifies recurring compliance every 500 hours of time in service. This type of AD is classified as:

- A. A one-time AD with deferred compliance
- B. An emergency AD requiring before further flight
- C. A terminating action AD with permanent relief available
- D. A recurring AD with a defined compliance interval

8. Under 14 CFR § 43.11(b), when an aircraft is found unairworthy after an annual inspection, the inspector must:

- A. Notify the FAA Aircraft Registry of the unairworthy finding
- B. Ground the aircraft at the local FSDO for 90 days
- C. Provide the owner with a dated and signed list of discrepancies
- D. Issue a corrective action plan with completion deadlines

9. A Type Certificate Data Sheet for an aircraft specifies the approved engines, propellers, and fuel grades. A note also specifies "Maximum baggage compartment weight: 120 pounds." An alteration has added additional baggage storage exceeding this weight. The condition represents:

- A. Acceptable because additional storage is a common alteration
- B. A non-conformity to the approved type design
- C. Acceptable if the pilot manages weight distribution
- D. Not addressed by the TCDS baggage specification

10. Under § 65.95(a)(2), the IA may perform or supervise progressive inspections in accordance with:

- A. The aircraft owner's preferred inspection procedures

- B. The manufacturer's maintenance schedule only
- C. 14 CFR § 43.15 and § 43.16 and Part 43 Appendix D
- D. The local FSDO's quarterly inspection recommendations

11. An IA performing an annual inspection on a Part 91 aircraft reviews the aircraft records and discovers a major alteration was completed without proper IA approval. The IA's action is:

- A. Treat the alteration as ineffective and proceed with the inspection
- B. Create retroactive approval documentation and continue
- C. Treat the discrepancy as an unairworthy condition requiring resolution
- D. Note the finding in the next inspection schedule

12. Under 14 CFR § 43.9, the maintenance record entry must include a signature and certificate number of the person approving the aircraft for return to service. This requirement applies to:

- A. Every entry for work returning the aircraft to service
- B. Only entries for major repairs and alterations
- C. Only entries made by repair stations
- D. Only entries for inspection-related work

13. An IA is inspecting an aircraft's propeller and finds the blade leading edge has a 0.125-inch nick within the manufacturer's dressing limits. The appropriate action is:

- A. Replace the propeller blade before return to service
- B. Apply a protective coating to the damaged area
- C. Note the finding in the next scheduled inspection
- D. Dress the damage per manufacturer specifications

14. Under § 43.13(a), each person performing maintenance must use methods, techniques, and practices acceptable to the Administrator. This is commonly satisfied by:

- A. The mechanic's personal experience and training
- B. AC 43.13-1B methods, techniques, and practices
- C. The aircraft owner's maintenance preferences
- D. The local FSDO's regional guidance materials

15. The airworthiness certificate of an aircraft ceases to be effective when which event occurs?

- A. The aircraft is flown at higher altitude than typical operations
- B. The aircraft is sold to a new registered owner
- C. The aircraft's annual inspection is completed within 12 months
- D. Maintenance required by Parts 43 and 91 is not performed

16. Under AC 43.13-1B Chapter 6, the type of corrosion that produces thread-like patterns beneath paint is:

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

17. An IA verifying AD compliance during an annual inspection discovers a recurring AD is overdue. The regulatory status of the aircraft is:

- A. Airworthy pending scheduled compliance within the overrun
- B. Acceptable if the AD allows a 10-hour overrun provision

- C. Unairworthy under § 39.9 until AD compliance is accomplished
- D. Acceptable under temporary extension provisions

18. Under § 43.3(g), a certificated pilot may perform preventive maintenance on the pilot's own aircraft. The scope of this authority is limited to items listed in:

- A. The aircraft's pilot operating handbook
- B. The mechanic's personal work authorization
- C. Manufacturer's service bulletins
- D. Part 43 Appendix A, paragraph (c)

19. The FAA Dynamic Regulatory System provides which resource to the IA for research purposes?

- A. Current and historical airworthiness directive information
- B. Certification documentation for Part 145 repair stations
- C. Pilot examination results for aviation certification
- D. Civil aviation case law and enforcement records

20. An IA is inspecting an aircraft and finds the altimeter system was last inspected 28 calendar months ago. The aircraft will be operated IFR. The correct disposition is:

- A. Continue the inspection and note the lapse afterward
- B. Accept the records for VFR operation only
- C. Require § 91.411 testing before IFR operation
- D. Ignore the lapse if the instrument appears to function

21. Under 14 CFR § 65.95(b), an IA whose authorization has expired must:

- A. Return FAA Form 8310-5 to the Administrator
- B. Submit the certificate to the Aircraft Registry
- C. Retain the certificate as a personal record
- D. File the certificate with the aircraft maintenance logs

22. A Supplemental Type Certificate (STC) is issued by the FAA to whom?

- A. The aircraft owner who requests the modification
- B. The Aviation Safety Inspector overseeing the approval
- C. The installing mechanic or repair station
- D. The STC holder, typically the modification developer

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

- A. Immediately before the records review begins
- B. At an intermediate stage of the inspection
- C. At the end of the inspection
- D. Prior to the disposition determination

24. An IA is inspecting an aircraft's electrical system and notes a bonding wire has visible corrosion at the termination. AC 43.13-1B Chapter 11 establishes that corroded bonding:

- A. Does not affect the aircraft's regulatory airworthiness
- B. Compromises RF performance and lightning protection
- C. Is acceptable if the bond visually appears intact

D. Requires replacement only if the resistance exceeds 2 volts

25. Under Part 43 Appendix A paragraph (b), repair of which aircraft part is classified as a major repair?

A. Replacement of a fuel filter element with an identical part

B. Adjustment of a cockpit control knob or switch

C. Replacement of a routine safety wire on a fastener

D. Repair involving the substitution of material

26. The FAA Form 337 must be submitted to the FAA Aircraft Registry within how long after return to service?

A. 48 hours

B. 72 hours

C. 5 business days

D. 10 business days

27. An IA is inspecting fabric covering on a vintage aircraft and performs a punch test. The result is below the AC 43.13-1B Chapter 2 minimum strength. The fabric:

A. Is acceptable if only one small area shows the low reading

B. Requires recover of the affected surface before return to service

C. Can be restored through additional doping procedures

D. Passes the inspection based on visible condition alone

28. Under § 91.203(a), the document that must be on board the aircraft during operation is:

A. The owner's insurance policy for the aircraft

- B. The aircraft's original type certificate documentation
- C. An effective airworthiness certificate
- D. The aircraft's Form 337 for all alterations

29. An IA performing a field approval review under Form 337 Block 3 must ensure the proposed alteration conforms to:

- A. The aircraft manufacturer's preferred alteration methods
- B. The aircraft owner's personal modification specifications
- C. The mechanic's standard installation preferences
- D. Applicable airworthiness requirements and approved data

30. Under 14 CFR § 91.207(d), an Emergency Locator Transmitter must be inspected within the preceding:

- A. 24 calendar months
- B. 12 calendar months
- C. 6 calendar months
- D. 36 calendar months

31. A mechanic installing a replacement part discovers the packaging and documentation are inconsistent with the manufacturer's standard format. The part's regulatory status is:

- A. Automatically approved if mechanical dimensions match
- B. Approved if installation location matches the original
- C. Suspect and requires verification before installation
- D. Approved based on the mechanic's identification experience

32. Under § 43.9(a)(4), the maintenance record entry must include the signature and certificate number of the approving person. This applies to:

- A. All maintenance work returning the aircraft to service
- B. Only work involving major repairs or alterations
- C. Only work performed by repair stations under Part 145
- D. Only work performed by Inspection Authorization holders

33. An IA inspecting a landing gear strut finds evidence of internal corrosion that has reduced the strut's structural integrity. The condition affects:

- A. The aircraft's certificate of registration validity
- B. The pilot's medical certification currency
- C. The type certificate data sheet approved equipment list
- D. The aircraft's condition for safe operation

34. Under 14 CFR § 21.197, a special flight permit is issued by:

- A. The aircraft's certified maintenance facility
- B. The FAA through the local Flight Standards District Office
- C. The aircraft's original manufacturer service division
- D. The local Aviation Safety Inspector without FSDO involvement

35. The IA's annual inspection record review must include verification of which element?

- A. The owner's personal pilot training certification records
- B. The aircraft's most recent fuel consumption data
- C. AD compliance status for aircraft and components

D. The aircraft's insurance policy coverage details

36. Under AC 43.13-1B Chapter 4, the acceptable practice for welded aircraft structural repair requires:

- A. A welder qualified for aircraft structural welding
- B. Any certificated A&P mechanic with welding experience
- C. The aircraft owner's approval of the welding contractor
- D. A Designated Engineering Representative's authorization

37. An aircraft has been modified with an STC that includes a flight manual supplement. The IA verifying the installation must ensure the supplement is:

- A. Stored in the mechanic's professional records
- B. Submitted to the Aircraft Registry with the Form 337
- C. Retained by the STC holder for future reference
- D. Incorporated into the aircraft's approved flight manual

38. Under § 43.5(b), the weight and balance record must be revised after maintenance that may appreciably change:

- A. The aircraft's required operating limitations
- B. The aircraft's empty weight or empty CG
- C. The aircraft's type certificate data sheet equipment list
- D. The aircraft's operating certificate category

39. The IA performing a pre-inspection records review is required to verify which of the following?

- A. The aircraft owner's insurance policy renewal date

- B. The aircraft owner's commercial pilot rating
- C. The airworthiness certificate and registration validity
- D. The aircraft's fuel consumption history and records

40. Under § 65.91(c), the minimum period the A&P certificate must have been in effect for IA eligibility is:

- A. At least 3 years with both ratings in effect
- B. At least 2 years since initial issuance
- C. At least 5 years with both ratings active
- D. At least 10 years of aviation maintenance experience

41. An IA is evaluating an aircraft for a special flight permit. The aircraft has a seized main landing gear and cannot be safely flown. The IA's attestation:

- A. Is appropriate if the aircraft's other systems function normally
- B. Is not appropriate because the aircraft cannot safely fly
- C. May be issued with a restriction to operating on the main gear
- D. Should defer the decision to the FSDO for final determination

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

- A. Superseded by other work or at the aircraft's sale
- B. Two years from the date of the work performed
- C. Permanently as part of the aircraft's regulatory record
- D. One year or until the work is superseded, whichever occurs first

43. A Form 337 Block 8 description of work reads: "Installed new communications radio per STC SA12345NM, Revision B dated 15 January 2025. Removed original radio. Installation drawings 601-00023-01 used." The description is:

- A. Adequate because it identifies the work and approved data
- B. Inadequate because the owner's information is not included
- C. Inadequate because the mechanic's hourly rate is not stated
- D. Inadequate because the aircraft value change is not included

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

- A. At ambient temperature of the test location
- B. Based on the mechanic's judgment of average conditions
- C. At manufacturer-specified temperatures with tensiometer
- D. At the aircraft owner's preferred operational temperature

45. An IA must approve a major repair for return to service. The three criteria under § 65.95(a)(1) are:

- A. IA insurance, aircraft registration, and owner agreement
- B. Work completion, owner payment, and owner notification
- C. FSDO approval, owner agreement, and aircraft inspection
- D. Aircraft scope, work per Part 43, approved technical data

46. Under 14 CFR § 91.409(d), a progressive inspection program requires:

- A. An inspection procedures manual describing the program
- B. Quarterly submissions to the FAA Aircraft Registry
- C. Annual approval from the aircraft manufacturer

D. Certification from a Part 145 repair station

47. The IA inspecting an aircraft finds multiple inoperative items deferred under § 91.213(d). The IA should verify that:

- A. The deferrals have been approved by the aircraft manufacturer
- B. The items are not required by TCDS, regulations, ADs, or flight manual
- C. The deferrals are covered by the aircraft's insurance policy
- D. The items have been deferred for less than 90 days

48. An aircraft's empty weight increased by 11.5 pounds after installation of new equipment at station 30.0 inches. The moment change is:

- A. +310.0 in-lb
- B. +335.0 in-lb
- C. +345.0 in-lb
- D. +400.0 in-lb

49. Under 14 CFR § 65.93, the approved refresher course for IA renewal must provide a minimum of:

- A. 4 hours of instruction
- B. 6 hours of instruction
- C. 12 hours of instruction
- D. 8 hours of instruction

50. The IA's determination of airworthiness at the conclusion of an annual inspection has one of three possible dispositions. The third disposition is:

- A. Airworthy with corrected minor discrepancies during inspection
- B. Unairworthy with dated discrepancy list to the owner
- C. Airworthy pending the next scheduled inspection
- D. Airworthy with deferred corrective action within 30 days

# PRACTICE EXAM 10: ANSWER KEY AND EXPLANATIONS

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1. D — Inadequate and raises a regulatory documentation concern. A Form 337 referencing an STC without the STC number fails to identify the approved data that authorized the alteration. The STC number is essential to regulatory traceability; a reference without the number does not establish that the installation was performed per approved data.
2. B — A certificated mechanic with appropriate rating. Section 43.7(a) authorizes return-to-service approval by certificated mechanics with appropriate rating for maintenance. Pilots have limited authority under § 43.3(g) for preventive maintenance only; owners and FAA officials have no return-to-service authority in this regulatory role.
3. A — 2,650 hours. The next compliance is calculated by adding the recurring interval to the last compliance time:  $2,500 + 150 = 2,650$  hours. Simple addition of the recurring interval produces the next-due time for any recurring AD.
4. C — The Form 337 documentation for the alteration. Section 91.417(a)(2) requires permanent retention and transfer of Form 337 records for major alterations. These are permanent records that travel with the aircraft; flight logs, billing records, and observation reports are not permanent records.
5. A — Determine whether Revision B changes the existing installation. An STC revision may or may not affect a previously completed installation depending on whether the revision changes the AML, installation requirements, or flight manual supplement. The IA's action is to verify what the revision changed before deciding on disposition.
6. B — Reference material for questions on regulations, ADs, and TCDS. FAA-CT-8080-8D contains regulatory excerpts, sample airworthiness directives, and TCDS references used as reference material for questions during the IA Knowledge Test. Complete regulation databases, course certificates, and DER directories are not included.
7. D — A recurring AD with a defined compliance interval. An AD specifying compliance every 500 hours is a recurring AD with a defined compliance interval. Recurring ADs require repeated compliance throughout the aircraft's service life; one-time, emergency, and terminating action ADs have different characteristics.
8. C — Provide the owner with a dated and signed list of discrepancies. Section 43.11(b) requires the IA to provide the owner with a dated and signed list of discrepancies and unairworthy items. Registry notification, grounding, and corrective action plans are not the regulatory requirements.

9. B — A non-conformity to the approved type design. TCDS notes specifying weight limits establish type design requirements. Exceeding the maximum baggage compartment weight is a non-conformity to approved type design, regardless of pilot weight management or commonality of storage alterations.
10. C — 14 CFR § 43.15 and § 43.16 and Part 43 Appendix D. Section 65.95(a)(2) authorizes the IA to perform or supervise progressive inspections in accordance with § 43.15, § 43.16, and Part 43 Appendix D. This is the specific regulatory framework governing progressive inspection execution.
11. C — Treat the discrepancy as an unairworthy condition requiring resolution. A major alteration without proper IA approval is a non-conformity to regulatory requirements. The alteration cannot be accepted until the approval gap is resolved; the aircraft is unairworthy until the documentation is corrected.
12. A — Every entry for work returning the aircraft to service. Section 43.9(a) requires the entry for work returning the aircraft to service to include the signature and certificate number of the approving person. This requirement applies to every return-to-service entry, not limited to major work or repair stations.
13. D — Dress the damage per manufacturer specifications. A nick within the manufacturer's dressing limits is addressed by dressing the damage per manufacturer guidance. This is the appropriate action for damage within specified limits; replacement, coating, and scheduling are not appropriate responses to within-limits damage.
14. B — AC 43.13-1B methods, techniques, and practices. Section 43.13(a) requires methods prescribed in the manufacturer's manual or acceptable to the Administrator. AC 43.13-1B is the FAA's reference establishing acceptable methods. Mechanic experience, owner preferences, and FSDO regional guidance are not the primary satisfying reference.
15. D — Maintenance required by Parts 43 and 91 is not performed. Section 21.181 establishes that a standard airworthiness certificate remains effective as long as maintenance is performed per Parts 43 and 91. Altitude operations, sales, and annual inspection completion do not affect certificate validity directly.
16. A — Filiform corrosion. AC 43.13-1B Chapter 6 describes filiform corrosion as thread-like corrosion occurring beneath paint films. The distinctive thread-like pattern distinguishes it from galvanic, pitting, or exfoliation corrosion, each of which has a different characteristic appearance.
17. C — 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. Overdue recurring compliance does not provide an overrun allowance or extension provision — the aircraft is unairworthy until the compliance is accomplished.

18. D — Part 43 Appendix A, paragraph (c). Section 43.3(g) authorizes pilot-owner preventive maintenance limited to items in Part 43 Appendix A paragraph (c). The POH, personal authorizations, and service bulletins are not the regulatory scope of pilot-owner maintenance authority.
19. A — Current and historical airworthiness directive information. The FAA Dynamic Regulatory System (DRS) is the online portal providing current and historical AD information, searchable by make, model, engine, and propeller. Repair station certification, pilot examinations, and case law are not DRS resources.
20. C — Require § 91.411 testing before IFR operation. Section 91.411 requires altimeter system testing within the preceding 24 calendar months for IFR operation. A 28-month lapse exceeds this requirement. The aircraft is not eligible for IFR operation until testing is complete; VFR operation may continue if otherwise compliant.
21. A — Return FAA Form 8310-5 to the Administrator. Section 65.95(b) requires the holder to return FAA Form 8310-5 to the Administrator when the authorization expires. Aircraft Registry submission, personal retention, and aircraft records filing are not the regulatory alternatives.
22. D — The STC holder, typically the modification developer. A Supplemental Type Certificate is issued by the FAA to the STC holder, who is typically the developer or manufacturer of the modification. The owner, ASI, and installer are not the STC holder; the STC holder retains the approval and licenses its use.
23. C — At the end of the inspection. 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 run-up verifies engine operation after all inspection work is complete; other timing does not satisfy the regulation.
24. B — Compromises RF performance and lightning protection. AC 43.13-1B Chapter 11 establishes that electrical bonding adequacy is critical for RF performance and lightning protection. Corroded bonding has increased electrical resistance, compromising these functions. The condition affects airworthiness, regardless of visual appearance or specific voltage thresholds.
25. D — Repair involving the substitution of material. Part 43 Appendix A paragraph (b) lists repairs involving material substitution as major repairs. Filter replacements with identical parts, control adjustments, and safety wire replacements are routine maintenance, not major repairs.
26. A — 48 hours. Part 43 Appendix B requires Form 337 to be forwarded to the FAA Aircraft Registry within 48 hours after return to service. This is the specific regulatory timing requirement for Form 337 submission.
27. B — Requires recover of the affected surface before return to service. AC 43.13-1B Chapter 2 establishes that fabric with punch test readings below specified minimums has failed the integrity

test and must be recovered before return to service. Acceptance of low readings, additional doping, and visual assessment are not substitutes for regulatory compliance.

28. C — An effective airworthiness certificate. Section 91.203(a) requires an effective airworthiness certificate to be on board during aircraft operation. Owner insurance, type certificate documentation, and Form 337s are not required to be aboard.
29. D — Applicable airworthiness requirements and approved data. An Aviation Safety Inspector reviewing a field approval must ensure the proposed alteration conforms to applicable airworthiness requirements and approved data. Manufacturer preferences, owner specifications, and mechanic preferences are not the regulatory review standards.
30. B — 12 calendar months. Section 91.207(d) requires ELT inspection within 12 calendar months. The inspection covers installation, battery condition, operation, and signal transmission to ensure ongoing compliance with regulatory requirements.
31. C — Suspect and requires verification before installation. A part with inconsistent packaging and documentation relative to manufacturer standards is a Suspected Unapproved Part indicator. The status is suspect, and verification is required before installation — mechanical similarity, installation location, and experience are not substitutes for regulatory verification.
32. A — All maintenance work returning the aircraft to service. Section 43.9(a)(4) applies to every entry for work returning the aircraft to service. The requirement is not limited to major repairs, repair stations, or IA-specific work; it applies universally to all return-to-service entries.
33. D — The aircraft's condition for safe operation. Internal corrosion reducing structural integrity of a landing gear strut affects the aircraft's condition for safe operation — the second element of the airworthiness definition. Registration, pilot certification, and TCDS equipment lists are not affected by the specific condition.
34. B — The FAA through the local Flight Standards District Office. Section 21.197 authority resides with the FAA, exercised through the local Flight Standards District Office. Maintenance facilities, manufacturer service divisions, and ASIs acting without FSDO involvement are not the regulatory authority for special flight permit issuance.
35. C — AD compliance status for aircraft and components. The IA's records review must include verification of AD compliance status for the aircraft, engine, propeller, and appliances. Pilot training records, fuel consumption data, and insurance coverage are not part of the records review.
36. A — A welder qualified for aircraft structural welding. AC 43.13-1B Chapter 4 specifically requires welders performing aircraft structural welding to meet qualification requirements. Any A&P with welding experience, owner approval of contractors, and DER authorization alone are not substitutes for the qualification requirement.

37. D — Incorporated into the aircraft's approved flight manual. An STC flight manual supplement is incorporated into the aircraft's approved flight manual and must be aboard the aircraft during operations under § 91.9. Professional records, Aircraft Registry, and STC holder retention are not regulatory requirements.
38. B — The aircraft's empty weight or empty CG. Section 43.5(b) requires weight and balance revision when maintenance may appreciably change weight or balance. The empty weight and empty CG figures are the specific values tracked in the weight and balance record.
39. C — The airworthiness certificate and registration validity. The IA's pre-inspection records review verifies the airworthiness certificate, registration, and periodic inspection currency. Owner insurance, pilot rating, and fuel records are not part of the regulatory records review.
40. A — At least 3 years with both ratings in effect. 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. This is the specific eligibility requirement established by the regulation.
41. B — Is not appropriate because the aircraft cannot safely fly. The IA's attestation for a special flight permit requires affirmative determination that the aircraft is capable of safe flight for the specific purpose. An aircraft with a seized main landing gear cannot safely fly; the IA cannot support a permit for such an aircraft.
42. D — One year or until the work is superseded, whichever occurs 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. Sale-triggered retention, two-year retention, and permanent retention are not the default standard for ordinary maintenance.
43. A — Adequate because it identifies the work and approved data. The description identifies the work performed (installing a new radio, removing the original) and the approved data (STC number, revision, drawing number). AC 43.9-1E standards are satisfied by this level of specificity. Owner information, labor rates, and value changes are not Block 8 requirements.
44. C — At manufacturer-specified temperatures with tensiometer. AC 43.13-1B Chapter 7 requires flight control cable tension to be measured at manufacturer-specified temperatures using a tensiometer. Ambient conditions, mechanic judgment, and owner preferences are not the regulatory measurement standards.
45. D — Aircraft scope, work per Part 43, approved technical data. Section 65.95(a)(1) establishes three criteria: (1) the aircraft not under a continuous airworthiness program, (2) work performed per Part 43, and (3) work performed with technical data approved by the Administrator. Insurance, payment, inspections, and similar commercial factors are not regulatory criteria.
46. A — An inspection procedures manual describing the program. Section 91.409(d) requires that a progressive inspection program be documented in an inspection procedures manual describing the

inspection scope, segmentation, and personnel requirements. Quarterly Registry submissions, manufacturer annual approval, and Part 145 certification are not program requirements.

47. B — The items are not required by TCDS, regulations, ADs, or flight manual. Section 91.213(d) requires verification that the inoperative item is not required by the TCDS, applicable regulations, any applicable AD, or the flight manual. Manufacturer approval, insurance coverage, and 90-day deferrals are not the regulatory criteria.
48. C — +345.0 in-lb. The moment change is weight multiplied by arm:  $11.5 \times 30.0 = 345.0$  in-lb. Simple multiplication of weight and arm produces the moment change for any weight and balance revision.
49. D — 8 hours. Section 65.93 specifies that an approved refresher course must provide at least 8 hours of instruction for IA renewal. This minimum duration is established by the regulation and must be met by any approved IA renewal course.
50. B — Unairworthy with dated discrepancy list to the owner. The IA's annual inspection has three dispositions: (1) airworthy with signed return to service, (2) airworthy with corrected minor discrepancies during the inspection, or (3) unairworthy with dated and signed discrepancy list provided to the owner. This last disposition is the formal unairworthy determination.