

PRACTICE EXAM 16: SIGNAL MAINTAINER SIMULATION (150 QUESTIONS)

This 150-question written practice simulation prepares decision sequencing, safety, electrical and electronic reasoning, electro-mechanical equipment, signals, detection, schematics, tools, troubleshooting, and records. The MTA New York City Transit Signal Maintainer assessment includes practical skills; this written set does not reproduce physical equipment handling. Use 65% as a study benchmark. The current official notice, local rules, and authorized training procedures control.

1. During a post-maintenance return-to-service check, a signal condition is unclear. What should be preserved first?

- A. The technician's initial guess
- B. The last permissive command
- C. The most restrictive known state
- D. The quickest visible indication

2. Before documenting the final condition, a drawing is available but the maintainer remembers a different circuit. Which reference controls?

- A. Personal memory of the circuit
- B. An older printed copy
- C. A nearby equipment label
- D. The current authorized drawing

3. In a controlled training scenario, a planned task involves several workers and a live operating area. What should occur before work begins?

- A. A test without communication
- B. A reset of every control
- C. Immediate component removal
- D. A task briefing and hazard review

4. When preparing a handoff to the next maintainer, hazardous energy may remain after an isolation step. What is the next safe action?

- A. Verify the expected zero-energy condition
- B. Remove the warning tag
- C. Assume the isolation worked
- D. Begin probing the load

5. After comparing the field condition with the drawing, a test could change an indication seen by operations. What should happen before the test?

- A. Proceed silently to save time
- B. Communicate and obtain required authorization
- C. Disconnect the nearest relay
- D. Clear the indication manually

6. Before making any temporary circuit change, a temporary jumper is installed during an authorized test. What is essential?

- A. Hide it inside the case
- B. Treat it as a permanent repair
- C. Identify, control, and remove it under procedure
- D. Leave it for the next shift

7. During a weather-affected inspection, a meter and lead set will be used near electrical energy. What should be checked?

- A. Ratings, condition, and intended measurement
- B. Whether the display is bright
- C. Only the battery level
- D. Only the color of the leads

8. After a switch movement does not complete, an instruction conflicts with the equipment condition or authority is unclear. What is the professional response?

- A. improvise a replacement step
- B. Continue until the symptom changes
- C. Ask an unqualified bystander
- D. Stop and obtain clarification

9. Before opening a relay or equipment case, work is near an active trackway. Which priority controls the task?

- A. Keep the cabinet open
- B. Protect people and train movement first
- C. Avoid documenting the delay
- D. Finish the measurement quickly

10. During a drawing and terminal audit, poor visibility makes a field observation uncertain. What is the best response?

- A. Ignore the environmental condition
- B. Record a definite result anyway
- C. Control the hazard and improve the observation
- D. Move equipment without a briefing

11. After a route does not release as expected, a work order does not clearly include a proposed change. What should the maintainer do?

- A. Expand the work to save a trip
- B. Confirm the authorized scope before changing equipment
- C. Use a previous job as permission
- D. Change the most accessible part

12. While isolating a suspected open circuit, a fault crosses the boundary between two maintenance groups. What makes the handoff useful?

- A. State condition, evidence, limits, and next action
- B. Send the equipment without notes
- C. Repeat every test without results
- D. Report only that it failed

13. While reviewing a new trouble report, an event log may help explain an intermittent failure. What should happen to the record?

- A. Replace it with a guess
- B. Delete old events immediately
- C. Rely on memory after repair
- D. Preserve it before resetting or clearing evidence

14. After an unexpected indication appears, a non-routine bypass appears necessary to continue. What is the proper decision?

- A. Install it because it is temporary
- B. Ask the operator to approve it casually
- C. Escalate for authorized direction
- D. Use it without labeling

15. During a supervisor-directed diagnostic task, a repair appears complete. What confirms the task is actually closed?

- A. Closing the equipment case only
- B. Test, restore, document, and communicate the final state
- C. Removing the work order from the desk
- D. The original symptom disappearing once

16. During a recurring-fault investigation, what does a voltage measurement between two points describe?

- A. The potential difference between those points
- B. The power rating of the fuse
- C. The current through every branch
- D. The resistance of the entire system

17. After a measurement does not match the prediction, what must exist for current to flow through an intended control path?

- A. A ground label alone
- B. An open contact and no return
- C. A source, a complete path, and a load
- D. A meter connected in parallel

18. While preparing equipment for a functional test, an open conductor is suspected in a control circuit. What is the defining condition?

- A. The source has doubled
- B. The fuse becomes larger
- C. Every branch is shorted
- D. The intended path is interrupted

19. When a signal response appears more permissive than expected, what is a likely effect of an unintended low-resistance path across a source?

- A. Excess current and possible protection operation
- B. Improved insulation resistance
- C. Guaranteed lower load current
- D. A permanent open circuit

20. After a protective device operates, a source reads normally with no load but falls at the load. What should be considered?

- A. A perfect circuit with no fault
- B. A change in signal color only
- C. A voltage drop or source-delivery problem
- D. A larger-than-normal conductor

21. While checking a battery-backed supply, what is common to all elements in a simple series path?

- A. Every branch is independent
- B. No element affects another
- C. Each element has identical voltage
- D. The same current flows through each element

22. When two indications do not agree, what is a key feature of parallel branches?

- A. They make every load series-connected
- B. They provide separate paths across common nodes
- C. They always carry identical current
- D. They eliminate the need for a return

23. During a planned maintenance shift, why is polarity important in a DC control circuit?

- A. It changes an AC waveform into a fuse
- B. It eliminates the need for a source
- C. It makes an open contact conductive
- D. It determines how devices and protective paths operate

24. Before beginning a wayside inspection, which distinction matters when selecting a measurement method?

- A. DC always has zero current
- B. AC and DC use identical instruments
- C. AC alternates while DC maintains a substantially fixed polarity
- D. AC never uses a return

25. While checking a recently restored circuit, what is a transformer commonly used to provide?

- A. A replacement for every fuse
- B. A changed AC voltage level or isolation
- C. A direct-current short circuit
- D. A mechanical switch position

26. When a normal indication is not present, what is the intended protective action of a fuse under sufficient overcurrent?

- A. Its element opens the circuit
- B. It increases the source voltage
- C. It locks every route
- D. It makes the load more conductive

27. While confirming the limits of a work order, why must ground or reference be identified before measuring?

- A. It guarantees zero voltage everywhere
- B. It replaces the circuit drawing
- C. Ground always equals the load
- D. The reference determines what the reading means

28. When a control-room report conflicts with field evidence, why can a de-energized circuit still require caution?

- A. The meter removes every hazard
- B. De-energized always means discharged
- C. Stored energy may remain in components or conductors
- D. Stored energy exists only in lamps

29. During a track-detection review, what condition is normally required before measuring resistance in a circuit?

- A. The load is forced on
- B. The circuit is isolated from energized sources
- C. The fuse is bypassed
- D. The meter is placed across a live source

30. While reviewing an intermittent failure history, what can unexpected heat provide during a power investigation?

- A. Evidence that no load exists
- B. A reason to remove protection
- C. Proof that the circuit is healthy
- D. A clue that current or resistance is abnormal

31. When an authorized procedure reaches an unclear step, what is the basic conduction behavior of a diode?

- A. It favors current in one direction
- B. It creates mechanical travel
- C. It stores every input forever
- D. It opens in both directions

32. During a post-maintenance return-to-service check, why may a zener device appear in a reference circuit?

- A. It helps maintain a defined voltage region
- B. It provides mechanical locking
- C. It detects rail occupancy directly
- D. It replaces every relay contact

33. Before documenting the final condition, how can a transistor function in a control circuit?

- A. As a permanent open wire
- B. As a mechanical limit stop
- C. As a controlled electronic switch
- D. As a track wheel shunt

34. In a controlled training scenario, what separates a relay coil from its contacts?

- A. The contacts have no circuit function
- B. The coil's magnetic action controls isolated contacts
- C. The contacts are always the source
- D. The coil is a fuse element

35. When preparing a handoff to the next maintainer, what does normally open describe?

- A. Its voltage while energized
- B. Its guaranteed safe indication
- C. The defined normal condition of a contact
- D. Its resistance under every fault

36. After comparing the field condition with the drawing, what should be considered when an LED indication is dark?

- A. Only the remote display
- B. The device, polarity, source, and control path
- C. A guaranteed track occupancy
- D. Only the label color

37. Before making any temporary circuit change, what is a useful first inspection of a printed circuit board?

- A. Reset the processor repeatedly
- B. Change every adjustment
- C. Remove all components
- D. Look for damage, contamination, and abnormal connections

38. During a weather-affected inspection, what can a poorly seated connector cause?

- A. Intermittent or missing signals
- B. A permanent increase in source voltage
- C. Automatic route release
- D. Guaranteed correct input logic

39. After a switch movement does not complete, what is electromagnetic interference likely to produce?

- A. A verified open circuit
- B. A higher fuse rating
- C. Unwanted disturbance coupled into equipment
- D. A mechanical lock position

40. Before opening a relay or equipment case, what is a watchdog function intended to detect?

- A. Loss of expected processor activity
- B. A normal open contact
- C. A broken rail by sight
- D. A missing mechanical cover

41. During a drawing and terminal audit, why does an electronic input threshold matter?

- A. It changes a fuse into a relay
- B. The input interprets a range as a logic state
- C. It removes every noise source
- D. It proves the field device is aligned

42. After a route does not release as expected, what is the purpose of optical isolation?

- A. Create a mechanical throw
- B. Replace a current return
- C. Increase rail shunting
- D. Transfer a signal while limiting direct electrical coupling

43. While isolating a suspected open circuit, why is electrostatic discharge control important around boards?

- A. It changes AC into DC
- B. It makes every relay pick up
- C. A small discharge can damage sensitive components
- D. It improves track ballast

44. While reviewing a new trouble report, what is the safest way to interpret an HMI indication?

- A. Treat it as physical proof
- B. Compare it with field evidence and the current reference
- C. Ignore the field device
- D. Reset it until it agrees

45. After an unexpected indication appears, why is a successful reset not necessarily a repair?

- A. The fault is proven permanent
- B. The source has been replaced
- C. A reset always changes wiring
- D. The underlying cause may still be present

46. During a supervisor-directed diagnostic task, what sequence best describes a powered switch movement?

- A. Command, motor action, movement, and detection
- B. Route clearing without position proof
- C. Detection, removal, and guessing
- D. Lamp change, fuse removal, and release

47. During a recurring-fault investigation, what may unusually high motor current suggest?

- A. Perfect alignment
- B. No load on the motor
- C. Obstruction, friction, or mechanical overload
- D. A healthy detection circuit

48. After a measurement does not match the prediction, what does switch detection help prove?

- A. The route is automatically authorized
- B. The physical position meets the required condition
- C. The lamp has correct color
- D. The motor is always healthy

49. While preparing equipment for a functional test, what is the first concern when a mechanism meets resistance?

- A. Ignore the resistance
- B. Apply more force immediately
- C. Bypass the lock
- D. Protect the equipment and investigate the obstruction

50. When a signal response appears more permissive than expected, why is point alignment important to a switch function?

- A. It only changes cabinet lighting
- B. It removes the need for locking
- C. It affects movement, detection, and safe route conditions
- D. It proves the battery is charged

51. After a protective device operates, what is the purpose of a mechanical or electrical lock?

- A. Prevent an unsafe change from the required position
- B. Create a permissive indication alone
- C. Replace all detection
- D. Increase motor speed

52. While checking a battery-backed supply, what should a direction contactor provide in a motor circuit?

- A. An automatic work authorization
- B. Controlled selection of the commanded direction
- C. A permanent short across the motor
- D. A replacement for position detection

53. When two indications do not agree, what can a limit or detection contact reveal?

- A. Whether a defined travel or position condition exists
- B. The weather forecast
- C. The source's full capacity
- D. A guaranteed root cause

54. During a planned maintenance shift, why can contamination affect a mechanism?

- A. It eliminates lubrication needs
- B. It proves the motor is open
- C. It guarantees smoother travel
- D. It can add friction or interfere with contacts

55. Before beginning a wayside inspection, what may repeated thermal protection operation indicate?

- A. A clean contact path
- B. A perfectly unloaded motor
- C. A correct route release
- D. A persistent overload or inadequate cooling

56. While checking a recently restored circuit, what should happen before dismantling a mechanical assembly?

- A. Remove the detection wires
- B. Observe and record the condition first
- C. Force the mechanism by hand
- D. Reset the remote display

57. When a normal indication is not present, what is required after an adjustment to a switch mechanism?

- A. A complete authorized functional and protective test
- B. Immediate release without testing
- C. A new unrelated adjustment
- D. A visual glance only

58. While confirming the limits of a work order, when is manual movement of a powered mechanism acceptable?

- A. Before notifying operations
- B. Whenever the motor is slow
- C. Only when authorized and controlled by procedure
- D. When the route is unclear

59. When a control-room report conflicts with field evidence, two indications disagree about switch position. What is the best conclusion?

- A. The field indication must be wrong
- B. The remote indication always controls
- C. The route can be cleared anyway
- D. The position is not yet proven

60. During a track-detection review, what should the maintainer verify before closing a serviced equipment case?

- A. Covers, fasteners, wiring, and restored condition
- B. Only the original symptom
- C. Only the work order number
- D. Only the cabinet color

61. While reviewing an intermittent failure history, what gives a signal aspect its operating meaning?

- A. The brightness by itself
- B. The applicable rule and signal system
- C. The lamp brand alone
- D. A maintainer's preference

62. When an authorized procedure reaches an unclear step, a signal is dark when a permissive display was expected. What is the safe interpretation?

- A. Assume the route is clear
- B. Replace the rule with memory
- C. Treat the condition as restrictive until proven otherwise
- D. Force the lamp on

63. During a post-maintenance return-to-service check, a signal lamp or LED is dark. What should be isolated?

- A. Only the remote screen
- B. Only the route label
- C. Only the lens
- D. The device, source, control path, and return

64. Before documenting the final condition, what is the best way to analyze a signal circuit?

- A. Clear the route first
- B. Start with the brightest lamp
- C. Trace source, logic, output, indication, and return
- D. Replace every relay

65. In a controlled training scenario, what does a permissive indication not provide by itself?

- A. Any information about a display
- B. Blanket authorization to ignore governing rules
- C. A reason to read the drawing
- D. A condition that can be tested

66. When preparing a handoff to the next maintainer, why compare related indications during a fault?

- A. The comparison can reveal where states diverge
- B. It proves a lamp is good
- C. It authorizes a bypass
- D. It replaces all measurements

67. After comparing the field condition with the drawing, a signal appears clear but a required condition is unverified. What is the proper response?

- A. Reset the interlocking
- B. Proceed because the display is visible
- C. Ignore the missing proof
- D. Do not assume the permissive condition is valid

68. Before making any temporary circuit change, how should an aspect test be designed?

- A. It should force the most permissive state
- B. It should bypass protection
- C. It should verify the response without creating a false indication
- D. It should change several inputs at once

69. During a weather-affected inspection, why can route conditions affect a signal aspect?

- A. The lens supplies the logic
- B. The aspect depends on proven route and protection states
- C. The indication is independent of occupancy
- D. The lamp chooses the route

70. After a switch movement does not complete, what should be separated when troubleshooting relay and electronic selection logic?

- A. The case cover and label
- B. Only the lamp color
- C. The work order and weather
- D. Input conditions, selection logic, and output state

71. Before opening a relay or equipment case, how should color and position be interpreted?

- A. According to the governing local signal rules
- B. According to a generic internet chart
- C. According to personal experience only
- D. According to the nearest wire color

72. During a drawing and terminal audit, what should a persistent indication discrepancy become?

- A. A reason to erase the log
- B. A documented condition for authorized follow-up
- C. A permanent bypass
- D. A hidden informal adjustment

73. After a route does not release as expected, what is the protective purpose of a train-stop function?

- A. Initiate a restrictive response when required conditions fail
- B. Increase lamp intensity
- C. Guarantee a permissive movement
- D. Replace all track detection

74. While isolating a suspected open circuit, a control-room indication conflicts with the field device. What should guide the next decision?

- A. The more permissive indication
- B. The older maintenance note
- C. The discrepancy must be protected and investigated
- D. A guessed equipment state

75. While reviewing a new trouble report, what makes an intermittent aspect fault easier to analyze?

- A. A replacement without records
- B. Timestamps, sequence, and conditions of occurrence
- C. A report that says only intermittent
- D. A single reset

76. After an unexpected indication appears, what does a train wheelset normally do to a track circuit?

- A. It clears the protected section
- B. It increases rail insulation
- C. It provides a shunting path across the rails
- D. It opens every relay coil

77. During a supervisor-directed diagnostic task, what does a track relay release generally indicate?

- A. The rail is guaranteed intact
- B. The route is automatically released
- C. The source is fully charged
- D. The detection circuit is no longer in its clear state

78. During a recurring-fault investigation, what should be considered when a track circuit loses its source?

- A. A receiver or relay may drop restrictive
- B. The rails become shorter
- C. The train stop is bypassed
- D. The indication must become permissive

79. After a measurement does not match the prediction, why are rail bonds and connections important?

- A. They eliminate shunting
- B. They create a permissive indication alone
- C. They maintain the intended conductive path
- D. They replace the receiver

80. While preparing equipment for a functional test, what can cause a false occupancy indication?

- A. Only a brighter lamp
- B. A perfectly isolated rail
- C. A completed route release
- D. A fault that prevents the expected clear response

81. When a signal response appears more permissive than expected, what is the safe significance of a suspected broken rail response?

- A. The relay should be forced up
- B. The detection should favor a restrictive condition
- C. The indication can be ignored
- D. The signal should clear automatically

82. After a protective device operates, why must track-circuit boundaries be identified?

- A. They define which section the evidence applies to
- B. They make every relay identical
- C. They determine the weather
- D. They replace the current drawing

83. While checking a battery-backed supply, what does a coded track receiver interpret?

- A. A mechanical switch throw
- B. A specified electrical or coded detection signal
- C. A work-order number
- D. A lens color only

84. When two indications do not agree, why must a train-movement detection test be controlled?

- A. It can affect operating indications and protection
- B. It cannot affect a relay
- C. It removes the need for communication
- D. It only changes cabinet temperature

85. During a planned maintenance shift, local and remote occupancy indications disagree. What is established?

- A. The track is definitely clear
- B. The remote display is always correct
- C. The detection state is not yet resolved
- D. The field relay is always wrong

86. Before beginning a wayside inspection, how can wet ballast affect a track circuit?

- A. It guarantees a clear response
- B. It removes the need for bonds
- C. It opens the relay by command
- D. It can reduce insulation and create leakage

87. While checking a recently restored circuit, what is required before performing a shunt test?

- A. A bypass of the receiver
- B. Authorization, protection, and the approved test method
- C. A cleared route without notice
- D. A casual verbal guess

88. When a normal indication is not present, what must be true before a clear indication is accepted?

- A. The last train has passed
- B. Only the lamp is illuminated
- C. The relay case is closed
- D. All required detection and protection conditions are proven

89. While confirming the limits of a work order, what is useful when the same occupancy fault recurs?

- A. Erase earlier work records
- B. Repeat one reset only
- C. Compare trend information with prior conditions
- D. Change the indication label

90. When a control-room report conflicts with field evidence, what should be verified after a detection repair?

- A. The intended occupied and clear responses
- B. Only the relay cover
- C. Only the remote display
- D. Only the source voltage

91. During a track-detection review, what is the central purpose of interlocking?

- A. Prevent conflicting or unsafe combinations of movements
- B. Replace maintenance records
- C. Increase every signal aspect
- D. Remove track detection

92. While reviewing an intermittent failure history, what does route locking hold?

- A. Only the lamp lens
- B. The weather condition
- C. A technician's personal setting
- D. Route elements against an unsafe change

93. When an authorized procedure reaches an unclear step, why does approach locking matter?

- A. It clears an occupied track
- B. It limits casual changes after a train approaches
- C. It replaces signal rules
- D. It increases motor speed

94. During a post-maintenance return-to-service check, what must a switch prove before a route can rely on it?

- A. Only the operator saw movement
- B. Only a command was sent
- C. The required position and detection condition
- D. Only the motor ran

95. Before documenting the final condition, why can occupancy prevent a signal from clearing?

- A. The protected route condition is not fully proven
- B. The lamp is too bright
- C. The work order is closed
- D. The relay label is missing

96. In a controlled training scenario, what should be confirmed before clearing a signal?

- A. Only the nearest relay
- B. Only the last command
- C. Every required route, switch, and protection condition
- D. Only the signal head

97. When preparing a handoff to the next maintainer, what does a stick circuit commonly provide?

- A. A replacement for every input
- B. A permanent short circuit
- C. A mechanical lock only
- D. A controlled memory of a circuit state

98. After comparing the field condition with the drawing, missing proof in an interlocking condition should cause what response?

- A. An automatic route clear
- B. A restrictive or non-permissive response
- C. A forced relay pick-up
- D. A hidden bypass

99. Before making any temporary circuit change, why test one interlocking condition at a time?

- A. It preserves cause-and-effect information
- B. It avoids reading the drawing
- C. It guarantees a faster repair
- D. It makes every fault disappear

100. During a weather-affected inspection, what is route release evidence used to establish?

- A. That the work order is unnecessary
- B. That every lamp is new
- C. That the source is isolated
- D. That the route can safely return to an available state

101. After a switch movement does not complete, what should be considered when control can be local or remote?

- A. Only the last screen viewed
- B. Which control location currently has authority
- C. The more permissive command
- D. The closest lamp

102. Before opening a relay or equipment case, two conflicting commands appear at once. What is the safe approach?

- A. Apply both commands
- B. Clear the route manually
- C. Protect the condition and resolve the authority
- D. Accept the faster command

103. During a drawing and terminal audit, why is bypassing interlocking protection unacceptable without authorization?

- A. It proves the route is clear
- B. It can defeat a safety-critical dependency
- C. It always improves reliability
- D. It only changes paperwork

104. After a route does not release as expected, what is needed after interlocking maintenance?

- A. A visual inspection only
- B. A permissive indication alone
- C. A documented functional test and controlled restoration
- D. A reset without records

105. While isolating a suspected open circuit, what is especially useful in a route fault?

- A. Only a remembered symptom
- B. Only a replacement part number
- C. Only the final lamp state
- D. The sequence of commands, indications, and releases

106. While reviewing a new trouble report, what is the best starting point when reading a signal schematic?

- A. Identify the function being controlled
- B. Ignore the return path
- C. Count every wire first
- D. Start at the nearest lamp

107. After an unexpected indication appears, what do schematic symbols and references provide?

- A. A guarantee of current field condition
- B. A replacement for testing
- C. A route authorization
- D. A standardized way to relate parts to functions

108. During a supervisor-directed diagnostic task, what does a contact's normal state describe?

- A. Its voltage under load
- B. Its permitted route
- C. Its defined condition before the operating action
- D. Its state during every fault

109. During a recurring-fault investigation, why trace both potential and current paths?

- A. Potential replaces the drawing
- B. A voltage path may not complete current
- C. They are always identical
- D. Current never needs a return

110. After a measurement does not match the prediction, why are terminal numbers important?

- A. They connect the drawing reference to field wiring
- B. They set the fuse rating
- C. They determine aspect color
- D. They replace a test instrument

111. While preparing equipment for a functional test, what does a wire label help establish?

- A. The route release time
- B. The weather condition
- C. The measured current value
- D. The intended conductor identity and connection

112. When a signal response appears more permissive than expected, what can a parallel path or backfeed cause?

- A. A misleading voltage or unexpected operation
- B. A stronger insulation boundary
- C. A guaranteed open circuit
- D. A clean route release

113. After a protective device operates, how should an open and a short be distinguished?

- A. Both always remove current
- B. An open interrupts; a short creates an unintended path
- C. Both mean the fuse is healthy
- D. Neither affects indications

114. While checking a battery-backed supply, which drawing should be used for a field decision?

- A. A remembered sketch
- B. A generic internet diagram
- C. The current authorized revision
- D. A superseded copy

115. When two indications do not agree, what should happen when field wiring differs from the drawing?

- A. Ignore the difference
- B. Protect the condition and report the discrepancy
- C. Edit the drawing informally
- D. Force the wire into place

116. During a planned maintenance shift, how should a jumper appear in controlled documentation?

- A. Hidden from the record
- B. Shown as permanent wiring
- C. Recorded only from memory
- D. Identified with its location, purpose, and removal status

117. Before beginning a wayside inspection, what does a revision marker help the maintainer determine?

- A. Which lamp is brightest
- B. Which route is safest by itself
- C. Which information changed and when
- D. Which relay is fastest

118. While checking a recently restored circuit, why identify the interface between control and field equipment?

- A. It defines where evidence and responsibility change
- B. It replaces the work order
- C. It eliminates the need for handoff
- D. It guarantees matching indications

119. When a normal indication is not present, what is useful to write on a schematic during diagnosis?

- A. Unmarked guesses
- B. Permanent changes without approval
- C. Only the final answer
- D. Expected states and verified observations

120. While confirming the limits of a work order, what drawing information belongs in a technical handoff?

- A. The reference used and the relevant tested boundary
- B. Only the equipment color
- C. Only the technician's initials
- D. Only the drawing title

121. When a control-room report conflicts with field evidence, how should a meter be selected?

- A. Select by lead color
- B. Match its function and rating to the task
- C. Use the largest display
- D. Choose the oldest instrument

122. During a track-detection review, what should be inspected before using meter leads?

- A. Only the printed brand
- B. Only the case color
- C. Insulation, probes, connections, and condition
- D. Only the battery label

123. While reviewing an intermittent failure history, what is the purpose of a prove-test-prove sequence?

- A. Replace a circuit drawing
- B. Force the expected result
- C. Increase the circuit voltage
- D. Confirm the tester works before and after contact

124. When an authorized procedure reaches an unclear step, where should a voltage measurement be placed?

- A. Across a random wire pair
- B. Across defined points that answer the next question
- C. Across any convenient cover
- D. At the nearest ground label

125. During a post-maintenance return-to-service check, when is a continuity test appropriate?

- A. On an isolated path whose connection is being checked
- B. Across a live power source
- C. Across an energized relay coil
- D. Before identifying the return

126. Before documenting the final condition, why should a circuit be isolated before resistance testing?

- A. Isolation increases current
- B. The meter supplies every load
- C. External energy can distort readings or damage meters
- D. Resistance requires a permissive signal

127. In a controlled training scenario, how is current normally measured with a conventional meter?

- A. The meter is clipped to the case
- B. The meter is placed in series with the path
- C. The meter is placed across the source
- D. The leads are left open

128. When preparing a handoff to the next maintainer, what can a clamp meter help measure?

- A. A route lock position
- B. A lens alignment
- C. Current without opening the conductor path
- D. A schematic revision

129. After comparing the field condition with the drawing, what can an oscilloscope add to a signal investigation?

- A. A mechanical adjustment
- B. A permanent repair
- C. Automatic authorization
- D. Time and waveform information

130. Before making any temporary circuit change, what controls the use of an insulation tester?

- A. The authorized procedure and equipment limits
- B. The remote indication alone
- C. A desire for a larger number
- D. The nearest open contact

131. During a weather-affected inspection, why does instrument category rating matter?

- A. It shows the instrument's safe environment limits
- B. It sets the signal aspect
- C. It identifies the wire label
- D. It replaces protective equipment

132. After a switch movement does not complete, why does probe placement matter?

- A. It guarantees a correct answer
- B. It removes circuit loading
- C. It changes the drawing revision
- D. The placement defines what the measurement actually compares

133. Before opening a relay or equipment case, what should be selected before contacting a circuit?

- A. A setting chosen after contact
- B. The highest current range always
- C. A range and function suitable for the expected value
- D. A resistance range on a live source

134. During a drawing and terminal audit, what makes a measurement record useful?

- A. Only a rounded number
- B. Value, units, points, condition, and time
- C. Only the instrument brand
- D. Only the final diagnosis

135. After a route does not release as expected, a measurement is unexpected. What should happen first?

- A. Ignore the reading
- B. Force the expected value
- C. Change the component immediately
- D. Recheck the instrument, reference, and circuit state

136. While isolating a suspected open circuit, what should be defined before troubleshooting begins?

- A. The most convenient test point
- B. The observed symptom and its operational effect
- C. The replacement part
- D. The final repair time

137. While reviewing a new trouble report, how should a failure be reproduced?

- A. Only in a controlled, safe condition
- B. By repeating every unsafe action
- C. By bypassing protection
- D. By changing several variables

138. After an unexpected indication appears, why are known-good and known-bad boundaries useful?

- A. They guarantee a failed component
- B. They replace authorization
- C. They narrow the suspected fault area
- D. They eliminate documentation

139. During a supervisor-directed diagnostic task, what is the purpose of dividing a circuit path?

- A. Force the relay to pick up
- B. Make every branch identical
- C. Avoid measuring the source
- D. Separate possible fault locations using evidence

140. During a recurring-fault investigation, what does a half-split method do?

- A. Changes two components at once
- B. Tests a boundary that divides remaining possibilities
- C. Erases the original symptom
- D. Assumes the midpoint is faulty

141. After a measurement does not match the prediction, why change one variable at a time?

- A. It avoids reading the drawing
- B. It guarantees the first guess
- C. It preserves the meaning of the result
- D. It makes every repair permanent

142. While preparing equipment for a functional test, what should be recorded for an intermittent fault?

- A. Time, sequence, environment, and symptom conditions
- B. Only the word intermittent
- C. Only the successful reset
- D. Only the final replacement

143. When a signal response appears more permissive than expected, when is a wiggle or disturbance test acceptable?

- A. Whenever the fault is inconvenient
- B. Before recording the condition
- C. When authorized, controlled, and safe for the equipment
- D. As a substitute for every test

144. After a protective device operates, why can a reset mislead a troubleshooter?

- A. It may clear the symptom without removing the cause
- B. It permanently changes the wiring
- C. It confirms the route is clear
- D. It always proves the board failed

145. While checking a battery-backed supply, what separates evidence from assumption?

- A. A quick replacement
- B. An observed result that can be traced
- C. A confident explanation
- D. A familiar component name

146. When two indications do not agree, what should happen at the limit of the maintainer's authority?

- A. Continue with an unapproved bypass
- B. Guess the missing procedure
- C. Release the equipment informally
- D. Stop, protect the condition, and escalate

147. During a planned maintenance shift, what verifies that a correction worked?

- A. A closed cabinet only
- B. A verbal promise
- C. A new symptom disappearing
- D. Repeat the original function and protection test

148. Before beginning a wayside inspection, what does root-cause thinking add after a symptom is corrected?

- A. It asks why the failure occurred and could recur
- B. It assumes the part was defective
- C. It replaces functional testing
- D. It ends documentation

149. While checking a recently restored circuit, what is valuable in a recurring-fault log?

- A. Only the latest repair
- B. Patterns across time, equipment, and conditions
- C. Only the operator's first guess
- D. Only the part price

150. When a normal indication is not present, what should be done when evidence remains insufficient?

- A. Change the largest component
- B. Close the record as complete
- C. Preserve the safe state and obtain support
- D. Choose the most permissive answer

Practice Exam 16: Answer Key and Explanations

- 1. C** — The correct answer is The most restrictive known state. In practice, preserve the most restrictive known state. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.
- 2. D** — The correct answer is The current authorized drawing. In practice, use the current authorized drawing. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.
- 3. D** — The correct answer is A task briefing and hazard review. In practice, complete the task briefing and hazard review. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.
- 4. A** — The correct answer is Verify the expected zero-energy condition. In practice, verify the expected zero-energy condition. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.
- 5. B** — The correct answer is Communicate and obtain required authorization. In practice, communicate and obtain required authorization. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.
- 6. C** — The correct answer is Identify, control, and remove it under procedure. In practice, identify, control, and remove it under procedure. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.
- 7. A** — The correct answer is Ratings, condition, and intended measurement. In practice, check ratings, condition, and intended measurement. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.
- 8. D** — The correct answer is Stop and obtain clarification. In practice, stop and obtain clarification. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.
- 9. B** — The correct answer is Protect people and train movement first. In practice, protect people and train movement first. This preserves the safest known condition. It gives the maintainer evidence for the

next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

10. C — The correct answer is Control the hazard and improve the observation. In practice, control the hazard and improve the observation. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

11. B — The correct answer is Confirm the authorized scope before changing equipment. In practice, confirm the authorized scope before changing equipment. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

12. A — The correct answer is State condition, evidence, limits, and next action. In practice, state condition, evidence, limits, and next action. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

13. D — The correct answer is Preserve it before resetting or clearing evidence. In practice, preserve it before resetting or clearing evidence. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

14. C — The correct answer is Escalate for authorized direction. In practice, escalate for authorized direction. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

15. B — The correct answer is Test, restore, document, and communicate the final state. In practice, test, restore, document, and communicate the final state. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change.

16. A — The correct answer is The potential difference between those points. In practice, measure the potential difference between those points. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

17. C — The correct answer is A source, a complete path, and a load. In practice, confirm a source, complete path, and load. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

18. D — The correct answer is The intended path is interrupted. In practice, locate where the intended path is interrupted. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

19. A — The correct answer is Excess current and possible protection operation. In practice, treat excess current and protection operation as hazards. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

20. C — The correct answer is A voltage drop or source-delivery problem. In practice, investigate voltage drop or source delivery. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

21. D — The correct answer is The same current flows through each element. In practice, analyze the same current through each element. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

22. B — The correct answer is They provide separate paths across common nodes. In practice, analyze separate paths across common nodes. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

23. D — The correct answer is It determines how devices and protective paths operate. In practice, verify polarity before judging device operation. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

24. C — The correct answer is AC alternates while DC maintains a substantially fixed polarity. In practice, distinguish alternating from fixed polarity. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

25. B — The correct answer is A changed AC voltage level or isolation. In practice, check for changed AC level or isolation. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

26. A — The correct answer is Its element opens the circuit. In practice, expect the fuse element to open the circuit. This preserves the safest known condition. It gives the maintainer evidence for the next

decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

27. D — The correct answer is The reference determines what the reading means. In practice, identify the reference before interpreting the reading. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

28. C — The correct answer is Stored energy may remain in components or conductors. In practice, check for stored energy before contact. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

29. B — The correct answer is The circuit is isolated from energized sources. In practice, isolate the circuit before measuring resistance. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

30. D — The correct answer is A clue that current or resistance is abnormal. In practice, use heat as a clue to abnormal current or resistance. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change.

31. A — The correct answer is It favors current in one direction. In practice, test whether conduction favors one direction. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

32. A — The correct answer is It helps maintain a defined voltage region. In practice, check whether the reference voltage is defined. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

33. C — The correct answer is As a controlled electronic switch. In practice, evaluate its controlled switching state. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

34. B — The correct answer is The coil's magnetic action controls isolated contacts. In practice, trace the coil action and contact state separately. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

35. C — The correct answer is The defined normal condition of a contact. In practice, use the drawing's defined normal condition. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

36. B — The correct answer is The device, polarity, source, and control path. In practice, check the device, polarity, source, and path. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

37. D — The correct answer is Look for damage, contamination, and abnormal connections. In practice, inspect for damage, contamination, and connections. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

38. A — The correct answer is Intermittent or missing signals. In practice, check for intermittent or missing signals. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

39. C — The correct answer is Unwanted disturbance coupled into equipment. In practice, investigate unwanted coupled disturbance. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

40. A — The correct answer is Loss of expected processor activity. In practice, check for loss of expected processor activity. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

41. B — The correct answer is The input interprets a range as a logic state. In practice, compare the input with its logic threshold. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change.

42. D — The correct answer is Transfer a signal while limiting direct electrical coupling. In practice, limit direct electrical coupling while transferring the signal. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change.

43. C — The correct answer is A small discharge can damage sensitive components. In practice, control electrostatic discharge around sensitive components. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They

may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

44. B — The correct answer is Compare it with field evidence and the current reference. In practice, compare the HMI with field evidence and the reference. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change.

45. D — The correct answer is The underlying cause may still be present. In practice, look for the underlying cause after a reset. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

46. A — The correct answer is Command, motor action, movement, and detection. In practice, trace command, motor action, movement, and detection. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

47. C — The correct answer is Obstruction, friction, or mechanical overload. In practice, investigate obstruction, friction, or overload. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

48. B — The correct answer is The physical position meets the required condition. In practice, verify the physical position condition. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

49. D — The correct answer is Protect the equipment and investigate the obstruction. In practice, protect equipment and investigate the obstruction. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

50. C — The correct answer is It affects movement, detection, and safe route conditions. In practice, check movement, detection, and route conditions. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

51. A — The correct answer is Prevent an unsafe change from the required position. In practice, prevent an unsafe change from the required position. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change.

52. B — The correct answer is Controlled selection of the commanded direction. In practice, verify controlled direction selection. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

53. A — The correct answer is Whether a defined travel or position condition exists. In practice, check whether the defined travel condition exists. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

54. D — The correct answer is It can add friction or interfere with contacts. In practice, inspect for added friction or contact interference. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

55. D — The correct answer is A persistent overload or inadequate cooling. In practice, investigate overload or inadequate cooling. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

56. B — The correct answer is Observe and record the condition first. In practice, observe and record the condition first. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

57. A — The correct answer is A complete authorized functional and protective test. In practice, complete the authorized functional and protective test. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

58. C — The correct answer is Only when authorized and controlled by procedure. In practice, use manual movement only when authorized and controlled. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

59. D — The correct answer is The position is not yet proven. In practice, treat the position as unproven. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

60. A — The correct answer is Covers, fasteners, wiring, and restored condition. In practice, verify covers, fasteners, wiring, and restoration. This preserves the safest known condition. It gives the

maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

61. B — The correct answer is The applicable rule and signal system. In practice, use the applicable rule and signal system. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

62. C — The correct answer is Treat the condition as restrictive until proven otherwise. In practice, treat the condition as restrictive until proven otherwise. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change.

63. D — The correct answer is The device, source, control path, and return. In practice, isolate the device, source, path, and return. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

64. C — The correct answer is Trace source, logic, output, indication, and return. In practice, trace source, logic, output, indication, and return. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

65. B — The correct answer is Blanket authorization to ignore governing rules. In practice, do not treat it as blanket authorization. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

66. A — The correct answer is The comparison can reveal where states diverge. In practice, locate where the states diverge. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

67. D — The correct answer is Do not assume the permissive condition is valid. In practice, do not assume the permissive condition is valid. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change.

68. C — The correct answer is It should verify the response without creating a false indication. In practice, verify the response without creating a false indication. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change.

69. B — The correct answer is The aspect depends on proven route and protection states. In practice, check the proven route and protection states. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change.

70. D — The correct answer is Input conditions, selection logic, and output state. In practice, separate inputs, logic, and output state. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

71. A — The correct answer is According to the governing local signal rules. In practice, use the governing local signal rules. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

72. B — The correct answer is A documented condition for authorized follow-up. In practice, document the discrepancy for authorized follow-up. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

73. A — The correct answer is Initiate a restrictive response when required conditions fail. In practice, initiate a restrictive response when conditions fail. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

74. C — The correct answer is The discrepancy must be protected and investigated. In practice, protect and investigate the discrepancy. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

75. B — The correct answer is Timestamps, sequence, and conditions of occurrence. In practice, record timestamps, sequence, and occurrence conditions. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

76. C — The correct answer is It provides a shunting path across the rails. In practice, recognize the wheelset shunting path. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

77. D — The correct answer is The detection circuit is no longer in its clear state. In practice, treat the detection circuit as not clear. This preserves the safest known condition. It gives the maintainer evidence

for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change.

78. A — The correct answer is A receiver or relay may drop restrictive. In practice, check the restrictive response to source loss. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

79. C — The correct answer is They maintain the intended conductive path. In practice, verify the intended conductive path. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

80. D — The correct answer is A fault that prevents the expected clear response. In practice, look for a fault preventing the clear response. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change.

81. B — The correct answer is The detection should favor a restrictive condition. In practice, expect a restrictive detection response. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

82. A — The correct answer is They define which section the evidence applies to. In practice, apply the evidence only to the defined section. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change.

83. B — The correct answer is A specified electrical or coded detection signal. In practice, verify the specified detection signal. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

84. A — The correct answer is It can affect operating indications and protection. In practice, control the test because it can affect protection. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

85. C — The correct answer is The detection state is not yet resolved. In practice, treat the detection state as unresolved. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

86. D — The correct answer is It can reduce insulation and create leakage. In practice, investigate reduced insulation and leakage. This preserves the safest known condition. It gives the maintainer

evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

87. B — The correct answer is Authorization, protection, and the approved test method. In practice, obtain authorization, protection, and the approved method. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

88. D — The correct answer is All required detection and protection conditions are proven. In practice, prove all required detection and protection conditions. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

89. C — The correct answer is Compare trend information with prior conditions. In practice, compare trend information with prior conditions. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

90. A — The correct answer is The intended occupied and clear responses. In practice, verify the intended occupied and clear responses. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

91. A — The correct answer is Prevent conflicting or unsafe combinations of movements. In practice, prevent conflicting or unsafe movement combinations. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

92. D — The correct answer is Route elements against an unsafe change. In practice, hold route elements against an unsafe change. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

93. B — The correct answer is It limits casual changes after a train approaches. In practice, limit changes after an approach condition. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

94. C — The correct answer is The required position and detection condition. In practice, prove required position and detection. This preserves the safest known condition. It gives the maintainer evidence for

the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

95. A — The correct answer is The protected route condition is not fully proven. In practice, recognize that route proof is incomplete. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

96. C — The correct answer is Every required route, switch, and protection condition. In practice, confirm every required route and protection condition. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

97. D — The correct answer is A controlled memory of a circuit state. In practice, analyze the controlled memory state. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

98. B — The correct answer is A restrictive or non-permissive response. In practice, maintain a restrictive response when proof is missing. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

99. A — The correct answer is It preserves cause-and-effect information. In practice, preserve cause-and-effect information. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff. Use the same disciplined approach when conditions change.

100. D — The correct answer is That the route can safely return to an available state. In practice, establish whether the route can safely release. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change.

101. B — The correct answer is Which control location currently has authority. In practice, identify the control location with authority. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

102. C — The correct answer is Protect the condition and resolve the authority. In practice, protect the condition and resolve authority. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

103. B — The correct answer is It can defeat a safety-critical dependency. In practice, avoid defeating a safety-critical dependency. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

104. C — The correct answer is A documented functional test and controlled restoration. In practice, complete documented testing and controlled restoration. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

105. D — The correct answer is The sequence of commands, indications, and releases. In practice, reconstruct the sequence of commands and releases. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

106. A — The correct answer is Identify the function being controlled. In practice, identify the function being controlled. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

107. D — The correct answer is A standardized way to relate parts to functions. In practice, relate standardized symbols to functions. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

108. C — The correct answer is Its defined condition before the operating action. In practice, use the defined condition before operating action. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

109. B — The correct answer is A voltage path may not complete current. In practice, distinguish potential from a complete current path. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

110. A — The correct answer is They connect the drawing reference to field wiring. In practice, connect the drawing reference to field wiring. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

111. D — The correct answer is The intended conductor identity and connection. In practice, confirm conductor identity and connection. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

112. A — The correct answer is A misleading voltage or unexpected operation. In practice, investigate misleading voltage or unexpected operation. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

113. B — The correct answer is An open interrupts; a short creates an unintended path. In practice, distinguish interruption from an unintended path. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

114. C — The correct answer is The current authorized revision. In practice, use the current authorized revision. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

115. B — The correct answer is Protect the condition and report the discrepancy. In practice, protect the condition and report the discrepancy. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

116. D — The correct answer is Identified with its location, purpose, and removal status. In practice, identify location, purpose, and removal status. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

117. C — The correct answer is Which information changed and when. In practice, determine what changed and when. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

118. A — The correct answer is It defines where evidence and responsibility change. In practice, define where evidence and responsibility change. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

119. D — The correct answer is Expected states and verified observations. In practice, mark expected states and verified observations. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

120. A — The correct answer is The reference used and the relevant tested boundary. In practice, state the reference and tested boundary. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

121. B — The correct answer is Match its function and rating to the task. In practice, match function and rating to the task. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

122. C — The correct answer is Insulation, probes, connections, and condition. In practice, inspect insulation, probes, connections, and condition. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

123. D — The correct answer is Confirm the tester works before and after contact. In practice, confirm the tester before and after contact. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

124. B — The correct answer is Across defined points that answer the next question. In practice, measure across defined points. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

125. A — The correct answer is On an isolated path whose connection is being checked. In practice, test an isolated path. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

126. C — The correct answer is External energy can distort readings or damage meters. In practice, isolate the circuit before resistance testing. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

127. B — The correct answer is The meter is placed in series with the path. In practice, place the meter in series with the path. This preserves the safest known condition. It gives the maintainer evidence for

the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change.

128. C — The correct answer is Current without opening the conductor path. In practice, measure current without opening the path. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

129. D — The correct answer is Time and waveform information. In practice, observe time and waveform information. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

130. A — The correct answer is The authorized procedure and equipment limits. In practice, follow the authorized procedure and limits. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

131. A — The correct answer is It shows the instrument's safe environment limits. In practice, use the instrument within its rated environment. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

132. D — The correct answer is The placement defines what the measurement actually compares. In practice, define the comparison made by the measurement. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

133. C — The correct answer is A range and function suitable for the expected value. In practice, select a suitable range and function first. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change.

134. B — The correct answer is Value, units, points, condition, and time. In practice, record value, units, points, condition, and time. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

135. D — The correct answer is Recheck the instrument, reference, and circuit state. In practice, recheck the instrument, reference, and state. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

136. B — The correct answer is The observed symptom and its operational effect. In practice, define the symptom and operational effect. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

137. A — The correct answer is Only in a controlled, safe condition. In practice, reproduce it only in a controlled way. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

138. C — The correct answer is They narrow the suspected fault area. In practice, narrow the suspected fault area. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

139. D — The correct answer is Separate possible fault locations using evidence. In practice, separate fault locations using evidence. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

140. B — The correct answer is Tests a boundary that divides remaining possibilities. In practice, test a boundary that divides possibilities. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

141. C — The correct answer is It preserves the meaning of the result. In practice, preserve the meaning of the result. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

142. A — The correct answer is Time, sequence, environment, and symptom conditions. In practice, record time, sequence, environment, and conditions. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

143. C — The correct answer is When authorized, controlled, and safe for the equipment. In practice, use it only when authorized and controlled. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

144. A — The correct answer is It may clear the symptom without removing the cause. In practice, look for the cause beyond the reset. This preserves the safest known condition. It gives the maintainer

evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change.

145. B — The correct answer is An observed result that can be traced. In practice, trace the conclusion to an observed condition. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

146. D — The correct answer is Stop, protect the condition, and escalate. In practice, stop, protect, and escalate. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

147. D — The correct answer is Repeat the original function and protection test. In practice, repeat the original function and protection test. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

148. A — The correct answer is It asks why the failure occurred and could recur. In practice, ask why the failure occurred and could recur. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change.

149. B — The correct answer is Patterns across time, equipment, and conditions. In practice, compare patterns across time and conditions. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.

150. C — The correct answer is Preserve the safe state and obtain support. In practice, preserve the safe state and obtain support. This preserves the safest known condition. It gives the maintainer evidence for the next decision. The alternatives rely on unverified assumptions. They may bypass a safeguard or introduce an unnecessary change. Record the result for restoration, review, and handoff.