

PRACTICE EXAM 17: 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. After a measurement does not match the prediction, a signal condition is unclear. What should be preserved first?

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

2. While preparing equipment for a functional test, a drawing is available but the maintainer remembers a different circuit. Which reference controls?

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

3. When a signal response appears more permissive than expected, a planned task involves several workers and a live operating area. What should occur before work begins?

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

4. After a protective device operates, hazardous energy may remain after an isolation step. What is the next safe action?

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

5. While checking a battery-backed supply, a test could change an indication seen by operations. What should happen before the test?

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

6. When two indications do not agree, a temporary jumper is installed during an authorized test. What is essential?

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

7. During a planned maintenance shift, a meter and lead set will be used near electrical energy. What should be checked?

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

8. Before beginning a wayside inspection, an instruction conflicts with the equipment condition or authority is unclear. What is the professional response?

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

9. While checking a recently restored circuit, work is near an active trackway. Which priority controls the task?

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

10. When a normal indication is not present, poor visibility makes a field observation uncertain. What is the best response?

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

11. While confirming the limits of a work order, a work order does not clearly include a proposed change. What should the maintainer do?

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

12. When a control-room report conflicts with field evidence, a fault crosses the boundary between two maintenance groups. What makes the handoff useful?

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

13. During a track-detection review, an event log may help explain an intermittent failure. What should happen to the record?

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

14. While reviewing an intermittent failure history, a non-routine bypass appears necessary to continue. What is the proper decision?

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

15. When an authorized procedure reaches an unclear step, a repair appears complete. What confirms the task is actually closed?

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

16. During a post-maintenance return-to-service check, what does a voltage measurement between two points describe?

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

17. Before documenting the final condition, what must exist for current to flow through an intended control path?

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

18. In a controlled training scenario, an open conductor is suspected in a control circuit. What is the defining condition?

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

19. When preparing a handoff to the next maintainer, what is a likely effect of an unintended low-resistance path across a source?

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

20. After comparing the field condition with the drawing, a source reads normally with no load but falls at the load. What should be considered?

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

21. Before making any temporary circuit change, what is common to all elements in a simple series path?

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

22. During a weather-affected inspection, what is a key feature of parallel branches?

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

23. After a switch movement does not complete, why is polarity important in a DC control circuit?

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

24. Before opening a relay or equipment case, which distinction matters when selecting a measurement method?

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

25. During a drawing and terminal audit, what is a transformer commonly used to provide?

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

26. After a route does not release as expected, what is the intended protective action of a fuse under sufficient overcurrent?

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

27. While isolating a suspected open circuit, why must ground or reference be identified before measuring?

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

28. While reviewing a new trouble report, why can a de-energized circuit still require caution?

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

29. After an unexpected indication appears, what condition is normally required before measuring resistance in a circuit?

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

30. During a supervisor-directed diagnostic task, what can unexpected heat provide during a power investigation?

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

31. During a recurring-fault investigation, what is the basic conduction behavior of a diode?

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

32. After a measurement does not match the prediction, why may a zener device appear in a reference circuit?

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

33. While preparing equipment for a functional test, how can a transistor function in a control circuit?

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

34. When a signal response appears more permissive than expected, what separates a relay coil from its contacts?

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

35. After a protective device operates, what does normally open describe?

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

36. While checking a battery-backed supply, what should be considered when an LED indication is dark?

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

37. When two indications do not agree, what is a useful first inspection of a printed circuit board?

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

38. During a planned maintenance shift, what can a poorly seated connector cause?

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

39. Before beginning a wayside inspection, what is electromagnetic interference likely to produce?

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

40. While checking a recently restored circuit, what is a watchdog function intended to detect?

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

41. When a normal indication is not present, why does an electronic input threshold matter?

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

42. While confirming the limits of a work order, what is the purpose of optical isolation?

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

43. When a control-room report conflicts with field evidence, why is electrostatic discharge control important around boards?

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

44. During a track-detection review, what is the safest way to interpret an HMI indication?

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

45. While reviewing an intermittent failure history, why is a successful reset not necessarily a repair?

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

46. When an authorized procedure reaches an unclear step, what sequence best describes a powered switch movement?

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

47. During a post-maintenance return-to-service check, what may unusually high motor current suggest?

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

48. Before documenting the final condition, what does switch detection help prove?

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

49. In a controlled training scenario, what is the first concern when a mechanism meets resistance?

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

50. When preparing a handoff to the next maintainer, why is point alignment important to a switch function?

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

51. After comparing the field condition with the drawing, what is the purpose of a mechanical or electrical lock?

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

52. Before making any temporary circuit change, what should a direction contactor provide in a motor circuit?

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

53. During a weather-affected inspection, what can a limit or detection contact reveal?

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

54. After a switch movement does not complete, why can contamination affect a mechanism?

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

55. Before opening a relay or equipment case, what may repeated thermal protection operation indicate?

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

56. During a drawing and terminal audit, what should happen before dismantling a mechanical assembly?

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

57. After a route does not release as expected, what is required after an adjustment to a switch mechanism?

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

58. While isolating a suspected open circuit, when is manual movement of a powered mechanism acceptable?

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

59. While reviewing a new trouble report, two indications disagree about switch position. What is the best conclusion?

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

60. After an unexpected indication appears, what should the maintainer verify before closing a serviced equipment case?

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

61. During a supervisor-directed diagnostic task, what gives a signal aspect its operating meaning?

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

62. During a recurring-fault investigation, a signal is dark when a permissive display was expected. What is the safe interpretation?

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

63. After a measurement does not match the prediction, a signal lamp or LED is dark. What should be isolated?

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

64. While preparing equipment for a functional test, what is the best way to analyze a signal circuit?

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

65. When a signal response appears more permissive than expected, what does a permissive indication not provide by itself?

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

66. After a protective device operates, why compare related indications during a fault?

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

67. While checking a battery-backed supply, a signal appears clear but a required condition is unverified. What is the proper response?

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

68. When two indications do not agree, how should an aspect test be designed?

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

69. During a planned maintenance shift, why can route conditions affect a signal aspect?

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

70. Before beginning a wayside inspection, what should be separated when troubleshooting relay and electronic selection logic?

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

71. While checking a recently restored circuit, how should color and position be interpreted?

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

72. When a normal indication is not present, what should a persistent indication discrepancy become?

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

73. While confirming the limits of a work order, what is the protective purpose of a train-stop function?

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

74. When a control-room report conflicts with field evidence, a control-room indication conflicts with the field device. What should guide the next decision?

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

75. During a track-detection review, what makes an intermittent aspect fault easier to analyze?

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

76. While reviewing an intermittent failure history, what does a train wheelset normally do to a track circuit?

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

77. When an authorized procedure reaches an unclear step, what does a track relay release generally indicate?

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

78. During a post-maintenance return-to-service check, what should be considered when a track circuit loses its source?

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

79. Before documenting the final condition, why are rail bonds and connections important?

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

80. In a controlled training scenario, what can cause a false occupancy indication?

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

81. When preparing a handoff to the next maintainer, what is the safe significance of a suspected broken rail response?

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

82. After comparing the field condition with the drawing, why must track-circuit boundaries be identified?

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

83. Before making any temporary circuit change, what does a coded track receiver interpret?

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

84. During a weather-affected inspection, why must a train-movement detection test be controlled?

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

85. After a switch movement does not complete, local and remote occupancy indications disagree. What is established?

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

86. Before opening a relay or equipment case, how can wet ballast affect a track circuit?

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

87. During a drawing and terminal audit, what is required before performing a shunt test?

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

88. After a route does not release as expected, what must be true before a clear indication is accepted?

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

89. While isolating a suspected open circuit, what is useful when the same occupancy fault recurs?

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

90. While reviewing a new trouble report, what should be verified after a detection repair?

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

91. After an unexpected indication appears, what is the central purpose of interlocking?

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

92. During a supervisor-directed diagnostic task, what does route locking hold?

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

93. During a recurring-fault investigation, why does approach locking matter?

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

94. After a measurement does not match the prediction, what must a switch prove before a route can rely on it?

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

95. While preparing equipment for a functional test, why can occupancy prevent a signal from clearing?

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

96. When a signal response appears more permissive than expected, what should be confirmed before clearing a signal?

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

97. After a protective device operates, what does a stick circuit commonly provide?

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

98. While checking a battery-backed supply, missing proof in an interlocking condition should cause what response?

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

99. When two indications do not agree, why test one interlocking condition at a time?

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

100. During a planned maintenance shift, what is route release evidence used to establish?

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

101. Before beginning a wayside inspection, what should be considered when control can be local or remote?

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

102. While checking a recently restored circuit, two conflicting commands appear at once. What is the safe approach?

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

103. When a normal indication is not present, why is bypassing interlocking protection unacceptable without authorization?

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

104. While confirming the limits of a work order, what is needed after interlocking maintenance?

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

105. When a control-room report conflicts with field evidence, what is especially useful in a route fault?

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

106. During a track-detection review, what is the best starting point when reading a signal schematic?

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

107. While reviewing an intermittent failure history, what do schematic symbols and references provide?

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

108. When an authorized procedure reaches an unclear step, what does a contact's normal state describe?

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

109. During a post-maintenance return-to-service check, why trace both potential and current paths?

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

110. Before documenting the final condition, why are terminal numbers important?

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

111. In a controlled training scenario, what does a wire label help establish?

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

112. When preparing a handoff to the next maintainer, what can a parallel path or backfeed cause?

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

113. After comparing the field condition with the drawing, how should an open and a short be distinguished?

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

114. Before making any temporary circuit change, which drawing should be used for a field decision?

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

115. During a weather-affected inspection, what should happen when field wiring differs from the drawing?

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

116. After a switch movement does not complete, how should a jumper appear in controlled documentation?

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

117. Before opening a relay or equipment case, what does a revision marker help the maintainer determine?

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

118. During a drawing and terminal audit, why identify the interface between control and field equipment?

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

119. After a route does not release as expected, what is useful to write on a schematic during diagnosis?

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

120. While isolating a suspected open circuit, what drawing information belongs in a technical handoff?

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

121. While reviewing a new trouble report, how should a meter be selected?

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

122. After an unexpected indication appears, what should be inspected before using meter leads?

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

123. During a supervisor-directed diagnostic task, what is the purpose of a prove-test-prove sequence?

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

124. During a recurring-fault investigation, where should a voltage measurement be placed?

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

125. After a measurement does not match the prediction, when is a continuity test appropriate?

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

126. While preparing equipment for a functional test, why should a circuit be isolated before resistance testing?

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

127. When a signal response appears more permissive than expected, how is current normally measured with a conventional meter?

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

128. After a protective device operates, what can a clamp meter help measure?

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

129. While checking a battery-backed supply, what can an oscilloscope add to a signal investigation?

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

130. When two indications do not agree, what controls the use of an insulation tester?

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

131. During a planned maintenance shift, why does instrument category rating matter?

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

132. Before beginning a wayside inspection, why does probe placement matter?

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

133. While checking a recently restored circuit, what should be selected before contacting a circuit?

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

134. When a normal indication is not present, what makes a measurement record useful?

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

135. While confirming the limits of a work order, a measurement is unexpected. What should happen first?

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

136. When a control-room report conflicts with field evidence, what should be defined before troubleshooting begins?

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

137. During a track-detection review, how should a failure be reproduced?

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

138. While reviewing an intermittent failure history, why are known-good and known-bad boundaries useful?

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

139. When an authorized procedure reaches an unclear step, what is the purpose of dividing a circuit path?

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

140. During a post-maintenance return-to-service check, what does a half-split method do?

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

141. Before documenting the final condition, why change one variable at a time?

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

142. In a controlled training scenario, what should be recorded for an intermittent fault?

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

143. When preparing a handoff to the next maintainer, when is a wiggle or disturbance test acceptable?

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

144. After comparing the field condition with the drawing, why can a reset mislead a troubleshooter?

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

145. Before making any temporary circuit change, what separates evidence from assumption?

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

146. During a weather-affected inspection, what should happen at the limit of the maintainer's authority?

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

147. After a switch movement does not complete, what verifies that a correction worked?

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

148. Before opening a relay or equipment case, what does root-cause thinking add after a symptom is corrected?

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

149. During a drawing and terminal audit, what is valuable in a recurring-fault log?

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

150. After a route does not release as expected, what should be done when evidence remains insufficient?

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

Practice Exam 17: 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. C** — 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. D — 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. C — 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. B — 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. A — 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. D — 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. D — 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. C — 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. B — 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. A — 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. B — 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. D — 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. A — 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. B — 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. D — 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. C — 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. B — 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. A — 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. C — 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. B — 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. D — 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. D — 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. B — 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. B — 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. C — 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. D — 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. A — 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. D — 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. C — 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. D — 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. A — 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. B — 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. A — 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. C — 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. A — 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. B — 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. B — 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. D — 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. C — 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. D — 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. A — 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. B — 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. C — 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. D — 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. A — 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. D — 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. C — 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. B — 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. A — 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. C — 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. B — 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. A — 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. D — 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. D — 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. B — 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. C — 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. A — 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. D — 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. C — 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. D — 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. A — 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. C — 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. A — 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. A — 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. B — 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. A — 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. D — 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. B — 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. B — 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. C — 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. D — 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. C — 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. B — 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. D — 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. A — 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. B — 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. C — 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. D — 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. A — 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. C — 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. D — 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. B — 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. A — 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. B — 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. C — 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. D — 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. C — 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. B — 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. A — 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. A — 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. D — 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. C — 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. B — 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. C — 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. A — 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. D — 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. D — 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. A — 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. B — 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. D — 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. C — 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. A — 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.