

PRACTICE EXAM 17: SCHOOL CUSTODIAN-ENGINEER SIMULATION (100 QUESTIONS)

This standalone practice exam contains 100 multiple-choice questions based on the knowledge and abilities identified for NYC DCAS Custodian Engineer (Board of Education) Exam No. 6042. Select the single best answer for each question. A score of 70% is considered passing. Calculators are not permitted on the official examination; DCAS does not publish the official question count or time limit.

1. While checking the heating plant after an operating complaint, before starting a low-pressure boiler after an extended shutdown, what should be verified first?
 - A. The stack damper is fully closed
 - B. The water level is visible at the proper gauge-glass level
 - C. The safety valve discharge is temporarily capped
 - D. The thermostat is set to its highest value

2. Before accepting a boiler control back into routine service, what is the primary purpose of a boiler low-water cutoff?
 - A. To raise steam pressure during peak demand
 - B. To regulate chimney draft during ignition for the stated school-building operating conditions
 - C. To return condensate directly to the burner
 - D. To stop burner operation when the boiler water level becomes unsafe

3. During a documented startup following a weekend shutdown, a gauge glass appears full and does not change when the try cocks are operated. What is the best initial response?
 - A. Open the safety valve to lower the water line
 - B. Close the feedwater supply for the remainder of the shift

- C. Treat the reading as unreliable and test or clear the gauge-glass connections
- D. Increase firing rate until the level begins moving

4. While checking the heating plant after an operating complaint, why is a steam boiler warmed gradually from a cold condition?

- A. To limit uneven thermal expansion and stress
- B. To eliminate the need for combustion air
- C. To prevent all condensate from returning
- D. To make the water-level control respond faster

5. Before accepting a boiler control back into routine service, what condition most directly suggests incomplete combustion at an oil-fired boiler?

- A. A clear stack plume during steady firing
- B. Normal fuel pressure at the burner
- C. Stable flame with normal draft
- D. Dark smoke and soot accumulation

6. During a documented startup following a weekend shutdown, what is the safest action when a burner repeatedly locks out?

- A. Hold the reset button continuously
- B. Increase the fuel pressure at once
- C. Investigate and correct the cause before resetting again
- D. Bypass the flame safeguard temporarily

7. While checking the heating plant after an operating complaint, what is the purpose of blowing down a gauge glass?

- A. To confirm clear connections and reliable water-level indication

- B. To increase the boiler steaming rate
- C. To lubricate the gauge-glass valves
- D. To lower the boiler-room temperature

8. Before accepting a boiler control back into routine service, a steam trap has failed open. What is the most likely result?

- A. The chimney draft immediately reverses
- B. Live steam enters the condensate return system
- C. The safety valve setting increases
- D. The boiler cannot receive makeup water

9. During a documented startup following a weekend shutdown, why should boiler-room combustion-air openings remain unobstructed?

- A. They provide the only path for condensate return
- B. They set the boiler safety-valve pressure
- C. They prevent water from entering the gauge glass
- D. The burner needs sufficient air for safe, complete combustion

10. While checking the heating plant after an operating complaint, what does a rising stack temperature with unchanged load commonly indicate?

- A. The room thermostat is accurately calibrated
- B. Heat-transfer surfaces may be accumulating soot or scale
- C. The safety valve has been reset too low
- D. The condensate receiver is completely empty

11. Before accepting a boiler control back into routine service, when testing a boiler safety control, what practice is most appropriate?

- A. Adjust the control beyond its listed range
- B. Leave the boiler unattended during the test
- C. Follow the approved procedure and document the result
- D. Disable other controls to prevent interruption

12. During a documented startup following a weekend shutdown, what is a likely cause of water hammer in steam piping?

- A. Condensate collecting where steam moves through the line
- B. A properly operating thermostatic trap
- C. A fully open air vent on startup
- D. Excess insulation on a dry return

13. While checking the heating plant after an operating complaint, what should an operator do before opening a boiler blowdown valve?

- A. Close every boiler-room ventilation opening for the stated school-building operating conditions
- B. Disable the low-water cutoff circuit for the stated school-building operating conditions
- C. Confirm the discharge path is safe and the blowdown system is ready
- D. Raise the water level above the gauge glass

14. Before accepting a boiler control back into routine service, a boiler pressure gauge remains at zero while the boiler is clearly steaming. What should be concluded?

- A. The gauge or its connection may be defective and requires verification
- B. The safety valve must be leaking continuously
- C. The burner is receiving too much combustion air
- D. The boiler water is necessarily below the crown sheet

15. During a documented startup following a weekend shutdown, why is a burner flame-safeguard control essential?

- A. It controls condensate pump lubrication for the stated school-building operating conditions
- B. It sets domestic-water temperature for the stated school-building operating conditions
- C. It determines the building cleaning schedule for the stated school-building operating conditions
- D. It shuts fuel flow when an acceptable flame is not proven

16. While checking the heating plant after an operating complaint, what is the best response to a newly discovered boiler-water leak?

- A. Increase firing to evaporate the leaking water for the stated school-building operating conditions
- B. Reduce risk, isolate as appropriate, and assess the leak before continued operation
- C. Ignore it if the feedwater pump can keep up
- D. Add sealant without locating the source for the stated school-building operating conditions

17. During a seasonal ventilation and comfort review, a classroom is warm although the heating valve is closed. What should be checked first?

- A. Whether the cooling-tower basin is full for the stated school-building operating conditions
- B. Whether the valve is actually closing and the actuator linkage is intact
- C. Whether the roof drain is obstructed for the stated school-building operating conditions
- D. Whether the fire-alarm panel is normal for the stated school-building operating conditions

18. While comparing airflow and temperature in several occupied rooms, what is the main effect of a heavily loaded HVAC air filter?

- A. Reduced airflow and increased fan-system resistance
- B. Higher outdoor-air humidity in every season
- C. Lower electrical resistance in lighting circuits
- D. Increased boiler-water level for the stated school-building operating conditions

19. After maintenance changes the operation of an air-handling component, why should an air-handling unit be locked out before reaching into its fan section?

- A. The supply-air temperature may rise slightly
- B. The duct static pressure may become visible
- C. The fan can start automatically and cause severe injury
- D. The filter media may change color

20. During a seasonal ventilation and comfort review, what is the purpose of an HVAC economizer?

- A. To bypass all ventilation requirements for the stated school-building operating conditions
- B. To add steam directly to supply ductwork
- C. To increase refrigerant pressure during heating
- D. To use suitable outdoor air for cooling when conditions permit

21. While comparing airflow and temperature in several occupied rooms, what condition is commonly caused by insufficient airflow across an evaporator coil?

- A. Higher condensate drain temperature
- B. Coil icing and reduced cooling capacity
- C. Faster exhaust-fan rotation for the stated school-building operating conditions
- D. Increased boiler pressure for the stated school-building operating conditions

22. After maintenance changes the operation of an air-handling component, before changing a belt on an air-handler fan, what must be done?

- A. Close the building's domestic-water valve for the stated school-building operating conditions
- B. Reset the fire-alarm control panel for the stated school-building operating conditions
- C. Disconnect, lock out, and verify the fan's energy source
- D. Open every supply-air damper fully for the stated school-building operating conditions

23. During a seasonal ventilation and comfort review, what does short cycling of an HVAC compressor mean?

- A. The compressor starts and stops more frequently than intended
- B. The thermostat displays only outdoor temperature
- C. The condensate drain remains dry during heating
- D. The fan rotates in the wrong direction continuously

24. While comparing airflow and temperature in several occupied rooms, why must a condensate drain trap be correctly configured on an air handler?

- A. To raise fan motor speed for the stated school-building operating conditions
- B. To replace the need for a drain pan
- C. To increase refrigerant subcooling for the stated school-building operating conditions
- D. To allow drainage while preventing unwanted air movement through the drain

25. After maintenance changes the operation of an air-handling component, a supply fan runs, but several rooms receive little air. What is the best first system-level check?

- A. Increase boiler pressure immediately for the stated school-building operating conditions
- B. Drain the domestic-water heater for the stated school-building operating conditions
- C. Inspect filter condition, dampers, and obvious duct restrictions
- D. Replace every room thermostat for the stated school-building operating conditions

26. During a seasonal ventilation and comfort review, what is the purpose of balancing an air-distribution system?

- A. To make every duct the same physical length
- B. To deliver designed airflow to each served space
- C. To keep every thermostat at one setting
- D. To eliminate all outdoor air

27. While comparing airflow and temperature in several occupied rooms, why are refrigeration service tasks restricted to properly qualified personnel?

- A. Thermostats cannot be safely read by custodial staff
- B. Ductwork always contains asbestos insulation for the stated school-building operating conditions
- C. Air filters can only be purchased by license holders
- D. Refrigerants, pressure, electricity, and environmental controls create specialized hazards

28. After maintenance changes the operation of an air-handling component, what does an unusually noisy fan bearing most directly call for?

- A. Prompt inspection of lubrication, alignment, mounting, and bearing condition
- B. Opening all fire doors for ventilation
- C. Increasing the fan breaker size for the stated school-building operating conditions
- D. Immediate adjustment of boiler-water treatment for the stated school-building operating conditions

29. During a seasonal ventilation and comfort review, during occupied hours, why should outdoor-air dampers not simply remain closed?

- A. Closed dampers increase domestic-water pressure
- B. Closed dampers disable all lighting controls
- C. Open dampers prevent every coil from freezing
- D. Required ventilation helps dilute indoor contaminants

30. While comparing airflow and temperature in several occupied rooms, what should be verified after replacing an HVAC drive belt?

- A. Proper tension, alignment, guard installation, and rotation
- B. Higher circuit-breaker rating for the stated school-building operating conditions
- C. Maximum thermostat setpoint for the stated school-building operating conditions
- D. Closed condensate drain valve for the stated school-building operating conditions

31. After the repair area is secured and the correct branch is isolated, before replacing a damaged electrical switch, what is the essential first step?

- A. Remove the equipment grounding conductor for the stated school-building operating conditions
- B. Install a larger fuse for the stated school-building operating conditions
- C. De-energize, lock out as applicable, and verify absence of voltage
- D. Turn off the building water supply

32. Before closing a plumbing work order and removing temporary controls, what is the purpose of an equipment-grounding conductor?

- A. To increase voltage at the load for the stated school-building operating conditions
- B. To provide a low-impedance fault-current path that helps protective devices operate
- C. To regulate water pressure in metallic piping
- D. To carry normal return current in place of the neutral

33. During initial assessment of a fixture or piping failure, a circuit breaker trips repeatedly after being reset. What is the safest response?

- A. Hold the breaker handle in the on position
- B. Bypass the breaker with a jumper for the stated school-building operating conditions
- C. Leave it off and locate the overload or fault before restoring service
- D. Replace it with a higher-rated breaker for the stated school-building operating conditions

34. After the repair area is secured and the correct branch is isolated, what is the most appropriate tool for confirming that an electrical circuit is de-energized?

- A. A properly rated voltage tester used according to its instructions
- B. A pipe wrench with insulated tape
- C. A noncontact thermometer for the stated school-building operating conditions
- D. A wooden ruler placed near the outlet

35. Before closing a plumbing work order and removing temporary controls, what commonly causes a faucet to drip after it is shut off?

- A. A clogged roof drain for the stated school-building operating conditions
- B. A loose lighting ballast for the stated school-building operating conditions
- C. Excessive ventilation in the room for the stated school-building operating conditions
- D. A worn or damaged sealing component inside the valve

36. During initial assessment of a fixture or piping failure, before opening a clogged sink trap, what should be done?

- A. Increase the domestic-water pressure for the stated school-building operating conditions
- B. Control water use, place a container below, and wear suitable protection
- C. Seal the fixture overflow permanently for the stated school-building operating conditions
- D. Energize the nearby disposal continuously for the stated school-building operating conditions

37. After the repair area is secured and the correct branch is isolated, what is the purpose of a plumbing fixture trap?

- A. To retain a water seal that limits sewer-gas entry
- B. To increase water-heater recovery rate for the stated school-building operating conditions
- C. To raise pressure at the faucet
- D. To filter all solids from the water supply

38. Before closing a plumbing work order and removing temporary controls, a flush valve continues running after use. What should be checked first?

- A. The branch-circuit grounding electrode for the stated school-building operating conditions
- B. The classroom supply diffuser for the stated school-building operating conditions
- C. The boiler stack damper for the stated school-building operating conditions
- D. The valve's diaphragm or sealing mechanism for debris or wear

39. During initial assessment of a fixture or piping failure, what does a ground-fault circuit interrupter primarily protect against?

- A. Low domestic-water pressure for the stated school-building operating conditions
- B. Mechanical damage to conduit for the stated school-building operating conditions
- C. Electric shock from current leaking outside the intended circuit path
- D. All possible equipment overloads for the stated school-building operating conditions

40. After the repair area is secured and the correct branch is isolated, why should a replacement fuse match the required type and rating?

- A. Any fuse fits every holder safely for the stated school-building operating conditions
- B. The correct fuse protects conductors and equipment within their designed limits
- C. Fuse rating controls plumbing pressure for the stated school-building operating conditions
- D. A larger fuse always reduces energy use

41. Before closing a plumbing work order and removing temporary controls, a water pipe begins leaking above an electrical panel. What is the priority?

- A. Open the panel to wipe conductors dry
- B. Protect people, control electrical exposure, and isolate the water source safely
- C. Continue normal occupancy below the leak for the stated school-building operating conditions
- D. Stand in the water and reset breakers

42. During initial assessment of a fixture or piping failure, what is the likely effect of closing a valve too quickly in a water line?

- A. A permanent reduction in electrical voltage
- B. A loss of fire-alarm supervision
- C. An increase in boiler combustion air
- D. A pressure surge commonly called water hammer

43. After the repair area is secured and the correct branch is isolated, why should extension cords not be used as permanent building wiring?

- A. They prevent every circuit breaker from tripping for the stated school-building operating conditions
- B. They reduce water pressure in nearby piping for the stated school-building operating conditions
- C. They are intended for temporary use and are vulnerable to damage and overload
- D. They always supply direct current for the stated school-building operating conditions

44. Before closing a plumbing work order and removing temporary controls, after repairing a leaking pipe joint, what is the final essential step?

- A. Restore service gradually and inspect the joint under operating pressure
- B. Remove nearby pipe supports for the stated school-building operating conditions
- C. Leave the isolation valve closed indefinitely
- D. Paint the joint before testing for the stated school-building operating conditions

45. During a shift-opening inspection of emergency systems, what is the purpose of a fire-alarm pull station?

- A. To shut off domestic water throughout the school
- B. To control boiler firing pressure for the stated school-building operating conditions
- C. To let an occupant manually initiate a fire alarm
- D. To reset a tripped lighting breaker

46. After a life-safety device reports an abnormal condition, why must fire doors not be wedged open?

- A. They increase HVAC efficiency only when blocked
- B. They control sprinkler water pressure for the stated school-building operating conditions
- C. They serve as primary exits only when locked
- D. They are intended to limit smoke and fire spread when closed

47. Before a school program increases occupancy in an assembly space, a fire-alarm panel displays a trouble signal. What does it generally mean?

- A. The sprinkler system has discharged for the stated school-building operating conditions
- B. A system fault needs investigation even though an alarm condition is not indicated
- C. The building is safe to ignore until inspection
- D. A confirmed fire exists in every zone for the stated school-building operating conditions

48. During a shift-opening inspection of emergency systems, what should be kept clear around sprinkler heads?

- A. Storage and obstructions that could block the discharge pattern
- B. Every portable fire extinguisher for the stated school-building operating conditions
- C. Only noncombustible furniture for the stated school-building operating conditions
- D. All ceiling tiles within the room

49. After a life-safety device reports an abnormal condition, what is the main purpose of a standpipe system?

- A. To supply drinking water at classroom sinks
- B. To provide hose connections for firefighting water within a building
- C. To ventilate boiler combustion gases for the stated school-building operating conditions
- D. To remove condensate from air handlers

50. Before a school program increases occupancy in an assembly space, when emergency lighting fails during a routine test, what is the appropriate response?

- A. Assume normal lighting will always remain available for the stated school-building operating conditions
- B. Disable the test switch permanently for the stated school-building operating conditions
- C. Remove exit signs to avoid confusion for the stated school-building operating conditions
- D. Document the failure and arrange prompt correction while managing the affected risk

51. During a shift-opening inspection of emergency systems, why should exit routes remain free of stored materials?

- A. Narrow routes make occupants move faster
- B. Exit routes are only used by maintenance staff
- C. Obstructions can delay evacuation and increase trip or fire hazards
- D. Stored material improves corridor fire resistance

52. After a life-safety device reports an abnormal condition, what is the correct response when a sprinkler control valve is found partly closed without authorization?

- A. Treat it as an impairment, notify responsible parties, and restore protection under procedure
- B. Remove the valve-position indicator for the stated school-building operating conditions
- C. Silence all fire-alarm signals for the stated school-building operating conditions
- D. Leave it partly closed to conserve water for the stated school-building operating conditions

53. Before a school program increases occupancy in an assembly space, what is the purpose of an emergency generator serving life-safety loads?

- A. To supply designated critical equipment when normal power fails
- B. To operate every receptacle in the school indefinitely
- C. To eliminate the need for emergency lighting batteries
- D. To replace all routine utility service

54. During a shift-opening inspection of emergency systems, during a fire alarm, what should a custodian engineer prioritize?

- A. Finish routine preventive maintenance first for the stated school-building operating conditions
- B. Use elevators to move occupants faster
- C. Silence the alarm before determining its cause
- D. Follow the emergency plan, support evacuation, and communicate system information

55. After a life-safety device reports an abnormal condition, why are fire-protection inspection and test records important?

- A. They replace all physical inspections for the stated school-building operating conditions
- B. They are used only to calculate utility bills
- C. They document system condition, impairments, corrective action, and required follow-up
- D. They guarantee no future equipment failure

56. Before a school program increases occupancy in an assembly space, a portable fire extinguisher is missing from its designated location. What should be done?

- A. Move the location sign to another corridor for the stated school-building operating conditions
- B. Report and replace it promptly with the proper type while addressing the impairment
- C. Wait for the annual inspection for the stated school-building operating conditions
- D. Place a bucket of water there instead for the stated school-building operating conditions

57. While investigating a symptom that changes with equipment demand, several lights on one circuit flicker simultaneously. What is the best first inference?

- A. Every lamp failed independently at the same instant for the stated school-building operating conditions
- B. The boiler-water level is low for the stated school-building operating conditions
- C. A shared supply, connection, or circuit problem is more likely than several lamp failures
- D. The domestic-water pressure is too high for the stated school-building operating conditions

58. After confirming the complaint through direct observation, a pump motor hums but its shaft does not turn. What should be done first?

- A. De-energize it and check for mechanical binding or a failed starting component
- B. Increase breaker size and restart repeatedly for the stated school-building operating conditions
- C. Leave it humming until it begins turning for the stated school-building operating conditions
- D. Strike the motor housing while energized for the stated school-building operating conditions

59. During a controlled comparison of possible electrical and mechanical causes, a room has no heat while adjacent rooms on the same loop are warm. What is the best initial focus?

- A. The entire boiler fuel supply
- B. The roof drainage system for the stated school-building operating conditions
- C. The main utility electrical service
- D. Local valve, air, trap, control, or terminal-unit conditions

60. While investigating a symptom that changes with equipment demand, why is a written symptom history useful before troubleshooting intermittent equipment?

- A. It proves the newest part has failed for the stated school-building operating conditions
- B. It reveals timing, conditions, and patterns that may not appear during inspection
- C. It permits every safety device to be bypassed
- D. It eliminates the need to inspect the equipment

61. After confirming the complaint through direct observation, a repaired fan vibrates more than before. What should be checked first?

- A. Whether boiler-water treatment was changed for the stated school-building operating conditions
- B. Whether components were reassembled securely and the rotating parts are aligned
- C. Whether the fire-alarm panel clock is correct
- D. Whether restroom cleaner was diluted for the stated school-building operating conditions

62. During a controlled comparison of possible electrical and mechanical causes, what is the best reason to compare an abnormal reading with a known-good instrument?

- A. To determine whether the condition or the measuring device is faulty
- B. To make both instruments show identical serial numbers
- C. To increase equipment operating temperature for the stated school-building operating conditions
- D. To avoid documenting the original reading for the stated school-building operating conditions

63. While investigating a symptom that changes with equipment demand, a floor drain backs up only when several fixtures discharge. What does that pattern suggest?

- A. A thermostat calibration problem for the stated school-building operating conditions
- B. An excessively clean trap seal for the stated school-building operating conditions
- C. A partial downstream restriction that becomes evident at higher flow
- D. A lighting-circuit overload for the stated school-building operating conditions

64. After confirming the complaint through direct observation, after replacing a blown fuse, it opens again immediately. What should happen next?

- A. Bridge the fuse holder temporarily for the stated school-building operating conditions
- B. Keep replacing fuses until one remains intact
- C. Install a fuse with a much larger rating
- D. De-energize and locate the short circuit or fault before another replacement

65. During a controlled comparison of possible electrical and mechanical causes, an exhaust fan runs backward after electrical work. What is the best response?

- A. Reverse the fan blades by hand while energized
- B. Increase the motor overload setting for the stated school-building operating conditions
- C. Stop it and have rotation and wiring corrected before continued operation
- D. Block the discharge opening for the stated school-building operating conditions

66. While investigating a symptom that changes with equipment demand, why should baseline readings be recorded when equipment operates normally?

- A. They prevent the equipment from ever failing
- B. They provide comparison values for recognizing deterioration and diagnosing future faults
- C. They eliminate the need for visual inspection
- D. They replace manufacturer maintenance instructions for the stated school-building operating conditions

67. After confirming the complaint through direct observation, a ceiling stain grows only during heavy rain. What is the most logical first area to inspect?

- A. Roof, flashing, drain, or exterior penetration above and up-slope of the stain
- B. The classroom lighting switch for the stated school-building operating conditions
- C. The domestic hot-water thermostat for the stated school-building operating conditions
- D. The boiler burner nozzle for the stated school-building operating conditions

68. During a controlled comparison of possible electrical and mechanical causes, what is the value of checking the simplest likely causes early in troubleshooting?

- A. It permits safety procedures to be skipped for the stated school-building operating conditions
- B. It removes the need to verify the repair
- C. It guarantees the first guess is correct for the stated school-building operating conditions
- D. It can resolve common faults efficiently without unnecessary disassembly or parts replacement

69. While coordinating cleaning around instructional activity, which cleaning approach is most appropriate for an unknown spill?

- A. Restrict access, identify the material, and follow the applicable spill procedure
- B. Mix bleach and ammonia to neutralize it
- C. Use bare hands to determine its texture
- D. Spread the spill over a larger area

70. During inspection of chemical dilution and surface compatibility, why must bleach never be mixed with ammonia-containing cleaners?

- A. The mixture becomes an approved neutral detergent
- B. The mixture produces only harmless water vapor
- C. The mixture can release dangerous toxic gases

D. The ammonia prevents every chemical reaction

71. Before reopening an area following intensive custodial service, what is dwell time for a disinfectant?

- A. The interval between boiler blowdowns for the stated school-building operating conditions
- B. The period a surface must remain wet for the product to work as directed
- C. The drying time for every floor finish for the stated school-building operating conditions
- D. The time needed for a vacuum bag to fill

72. While coordinating cleaning around instructional activity, what should be done before applying floor finish to a stripped floor?

- A. Add solvent to the wet floor for the stated school-building operating conditions
- B. Close all exit routes with equipment for the stated school-building operating conditions
- C. Apply finish over remaining slurry for the stated school-building operating conditions
- D. Rinse or neutralize as directed and allow the clean floor to dry

73. During inspection of chemical dilution and surface compatibility, why are color-coded cleaning tools useful?

- A. They eliminate the need to clean the tools
- B. They replace required personal protective equipment
- C. They make every chemical compatible
- D. They help prevent cross-contamination between areas

74. Before reopening an area following intensive custodial service, what is the best practice for a wet floor in an occupied corridor?

- A. Turn off corridor lighting for the stated school-building operating conditions
- B. Apply additional finish immediately for the stated school-building operating conditions
- C. Control access, post clear warnings, and dry the area promptly

D. Leave equipment unattended across the exit

75. While coordinating cleaning around instructional activity, why should a chemical be diluted according to its label?

- A. Dilution changes every disinfectant into soap
- B. Correct concentration supports performance while limiting residue, damage, and exposure
- C. Labels apply only to unopened containers
- D. A stronger mixture is always safer

76. During inspection of chemical dilution and surface compatibility, how should soiled reusable cleaning cloths be handled?

- A. Collect them in a designated manner and launder them before reuse
- B. Use them in food areas without washing
- C. Leave them wet in a closed bucket indefinitely
- D. Return them directly to clean storage for the stated school-building operating conditions

77. While observing safe setup by a trained equipment operator, what should be checked before using a portable ladder?

- A. Only the paint color of the side rails
- B. Its condition, duty rating, footing, angle or setup, and surrounding hazards
- C. Whether the boiler is at operating pressure
- D. Whether the nearest outlet is energized for the stated school-building operating conditions

78. Before authorizing use of maintenance machinery for the shift, why should a mushroomed striking-tool head be removed from service?

- A. It makes the handle electrically grounded
- B. It prevents the tool from being stored

- C. Fragments can break away and cause impact injuries
- D. It increases the tool's cutting accuracy

79. After a power tool is removed from service for inspection, what is the safest choice when a power-tool guard interferes with a cut?

- A. Use the correct guarded tool and method rather than removing the guard
- B. Increase tool speed beyond its rating for the stated school-building operating conditions
- C. Hold the workpiece by hand near the blade
- D. Tie the guard open for better visibility for the stated school-building operating conditions

80. While observing safe setup by a trained equipment operator, before clearing a jam from snow-removal equipment, what should be done?

- A. Increase throttle to discharge the jam for the stated school-building operating conditions
- B. Tip the running machine toward the operator for the stated school-building operating conditions
- C. Reach into the chute while the engine idles
- D. Shut it down, isolate energy, and wait for moving parts to stop

81. Before authorizing use of maintenance machinery for the shift, why is the correct wrench size important?

- A. It increases electrical circuit voltage
- B. It replaces the need for eye protection
- C. It sharpens the fastener threads
- D. It reduces slipping and damage to the fastener

82. After a power tool is removed from service for inspection, what should be done with a damaged extension-cord jacket exposing conductors?

- A. Cover it with paper and continue using it

- B. Remove the cord from service and arrange proper repair or replacement
- C. Use it only in wet locations for the stated school-building operating conditions
- D. Place the damage beneath a rug for the stated school-building operating conditions

83. While observing safe setup by a trained equipment operator, when using a bench grinder, why is the tool rest kept properly adjusted?

- A. It increases the wheel's rated speed for the stated school-building operating conditions
- B. It eliminates the need for a wheel guard
- C. It supports the work and limits the gap where material could jam
- D. It changes alternating current to direct current for the stated school-building operating conditions

84. During planning for restoration of a damaged interior surface, what is the most important step before repainting a peeling surface?

- A. Identify and correct moisture or adhesion causes, then remove loose material
- B. Polish the surface with floor wax for the stated school-building operating conditions
- C. Keep the underlying surface continuously wet for the stated school-building operating conditions
- D. Apply a thick finish coat over the peeling paint

85. After preparation exposes contamination, moisture, or loose substrate, why is primer used on many bare or repaired surfaces?

- A. It promotes adhesion, seals porosity, and supports a uniform finish
- B. It replaces every required finish coat
- C. It makes incompatible coatings safe to mix
- D. It removes all moisture from walls

86. Before the coating work proceeds beyond the test area, what causes lap marks when rolling wall paint?

- A. Maintaining a wet edge during application for the stated school-building operating conditions
- B. Mixing the same batch consistently for the stated school-building operating conditions
- C. Allowing an edge to dry before the adjoining area is blended
- D. Using compatible paint and primer for the stated school-building operating conditions

87. During planning for restoration of a damaged interior surface, before disturbing an old unknown coating, what is the safest approach?

- A. Burn it off with an open flame
- B. Mix the debris into fresh paint
- C. Dry-sand it immediately without containment
- D. Assess potential hazardous content and follow required controls

88. After preparation exposes contamination, moisture, or loose substrate, why should painting materials be stored with labels intact and containers closed?

- A. Labels prevent every coating from expiring for the stated school-building operating conditions
- B. Labels preserve hazard and use information while closures limit spills and vapors
- C. Open containers improve long-term storage for the stated school-building operating conditions
- D. Closed containers make all products nonflammable for the stated school-building operating conditions

89. Before selecting the first response to several simultaneous building reports, a strong chemical odor is reported in an occupied classroom. What is the best first decision?

- A. Mask the odor with air freshener for the stated school-building operating conditions
- B. Protect occupants, restrict the area, and investigate the source using the emergency procedure
- C. Ask students to identify it closely for the stated school-building operating conditions
- D. Wait until the end of the week for the stated school-building operating conditions

90. When risk, service impact, and limited staff must be weighed together, two urgent repairs compete for one available worker: a leaking drinking fountain and an exposed energized conductor. Which gets priority?

- A. The drinking fountain because it is used more often
- B. Neither repair until both can be completed together
- C. The exposed energized conductor because it presents the more immediate severe hazard
- D. Whichever request arrived first regardless of risk for the stated school-building operating conditions

91. During a decision about maintaining or restricting access to a school area, repeated complaints occur only after a particular evening activity. What is the best next step?

- A. Compare schedules, loads, controls, and observations during that activity
- B. Dismiss the complaints as coincidence for the stated school-building operating conditions
- C. Change unrelated daytime cleaning products for the stated school-building operating conditions
- D. Replace all building equipment immediately for the stated school-building operating conditions

92. Before selecting the first response to several simultaneous building reports, a supervisor is unsure whether a damaged ceiling area is safe. What is the best decision?

- A. Conceal the damage with paint for the stated school-building operating conditions
- B. Ask occupants to avoid looking upward
- C. Allow occupancy until material falls for the stated school-building operating conditions
- D. Restrict access and obtain qualified evaluation before reopening the area

93. When risk, service impact, and limited staff must be weighed together, what is the best basis for choosing between two repair options?

- A. Personal preference for a familiar brand only
- B. Verified condition, safety, effectiveness, lifecycle cost, and operational impact
- C. The option requiring no documentation for the stated school-building operating conditions
- D. The option with the highest initial price

94. Before reserving funds for a scheduled maintenance purchase, a supply order is much larger than normal. What should be done before approval?

- A. Verify usage history, inventory, unit quantities, price, and the operational need
- B. Approve it because larger orders are always cheaper
- C. Discard previous inventory records for the stated school-building operating conditions
- D. Split it into undocumented purchases for the stated school-building operating conditions

95. During analysis of supply usage and the remaining operating balance, seventy-eight packages of supplies cost \$23 each. What is the total before fees?

- A. \$1,784
- B. \$1,894
- C. \$1,794
- D. \$1,694

96. While reviewing an invoice against the receiving record, a facilities allocation has \$19,750 before an approved \$13,925 project is charged. What remains?

- A. \$5,925
- B. \$6,825
- C. \$5,725
- D. \$5,825

97. Before reserving funds for a scheduled maintenance purchase, why should receipts and purchase records be reconciled promptly?

- A. To detect errors, document expenditures, and maintain an accurate available balance
- B. To eliminate the need for authorization for the stated school-building operating conditions
- C. To hide differences until year-end for the stated school-building operating conditions

D. To permit duplicate payment of invoices for the stated school-building operating conditions

98. Before acting on a written directive whose requirements remain in effect together, a directive says, “Complete the inspection before occupancy and submit the form by 10:00 a.m.” What is required?

- A. Begin the inspection at 10:00 a.m. after occupancy
- B. Complete either task at any time that day
- C. Submit the form before inspecting the area for the stated school-building operating conditions
- D. Finish the inspection before occupancy and submit the form by 10:00 a.m.

99. While translating a facilities circular into crew instructions, a memo states that only trained employees may use a new floor machine. What is the correct interpretation?

- A. Training is optional for experienced cleaners
- B. Untrained employees must not operate the machine until trained
- C. The restriction applies only outside school hours
- D. Any employee may operate it with verbal permission

100. After reading a work order that contains several dependent conditions, a work order lists a room number, reported symptom, access restriction, and completion deadline. Which detail should be reviewed before dispatch?

- A. Only the completion deadline for the stated school-building operating conditions
- B. Only the employee’s preferred tool for the stated school-building operating conditions
- C. All listed details because each can affect safe and timely completion
- D. Only the room number for the stated school-building operating conditions

Practice Exam 17: Answer Key and Explanations

1. B — The water level is visible at the proper gauge-glass level is the best response because adequate water must be confirmed before firing because heating a dry or severely low-water boiler can damage

pressure parts and create a dangerous condition. The safest answer preserves automatic protection and relies on verified plant indications instead of forcing operation through an unresolved abnormal condition.

2. D — To stop burner operation when the boiler water level becomes unsafe is the best response because the low-water cutoff interrupts the firing circuit before exposed heating surfaces overheat, making it a critical operating safety control rather than a pressure or draft device. The answer preserves protection and relies on plant indications instead of forcing operation through an unresolved abnormal condition.

3. C — Treat the reading as unreliable and test or clear the gauge-glass connections is the best response because blocked gauge-glass connections can trap water and create a false reading, so the operator must verify the water-level indication before relying on it or continuing firing. The answer preserves protection and relies on plant indications instead of forcing operation through an unresolved condition.

4. A — To limit uneven thermal expansion and stress is the best response because slow warming allows metal sections and connected piping to expand more uniformly, reducing thermal shock, leakage, and stress that can occur when cold equipment is heated too rapidly. The safest answer preserves protection and relies on verified plant indications instead of forcing operation through an unresolved abnormal condition.

5. D — Dark smoke and soot accumulation is the best response because dark smoke and soot show that fuel is not burning completely, commonly because atomization, air supply, mixing, or burner adjustment is inadequate. The safest answer preserves automatic protection and relies on verified plant indications instead of forcing operation through an unresolved abnormal condition.

6. C — Investigate and correct the cause before resetting again is the best response because repeated reset attempts can introduce unburned fuel or conceal a control failure; the cause must be diagnosed before another controlled start is attempted. The safest answer preserves automatic protection and relies on verified plant indications instead of forcing operation through an unresolved abnormal condition.

7. A — To confirm clear connections and reliable water-level indication is the best response because the blowdown procedure checks that steam and water passages are open and that the indicated level responds properly instead of remaining falsely fixed. The safest answer preserves automatic protection and relies on verified plant indications instead of forcing operation through an unresolved abnormal condition.

8. B — Live steam enters the condensate return system is the best response because an open trap no longer separates steam from condensate, wasting energy and potentially overheating or pressurizing return piping beyond its intended operating condition. The safest answer preserves automatic protection and relies on verified plant indications instead of forcing operation through an unresolved abnormal condition.

9. D — The burner needs sufficient air for safe, complete combustion is the best response because restricted combustion air can cause unstable or incomplete burning and poor draft, creating soot, carbon

monoxide, flame failure, and inefficient operation. The safest answer preserves automatic protection and relies on verified plant indications instead of forcing operation through an unresolved abnormal condition.

10. B — Heat-transfer surfaces may be accumulating soot or scale is the best response because deposits insulate heating surfaces, so more heat escapes up the stack instead of transferring into the boiler water under the same load. The safest answer preserves automatic protection and relies on verified plant indications instead of forcing operation through an unresolved abnormal condition.

11. C — Follow the approved procedure and document the result is the best response because safety controls require prescribed testing under controlled conditions, followed by documentation, so abnormal operation is recognized without creating a new hazard. The safest answer preserves automatic protection and relies on verified plant indications instead of forcing operation through an unresolved abnormal condition.

12. A — Condensate collecting where steam moves through the line is the best response because fast-moving steam can drive pooled condensate into fittings and valves, producing impact, noise, and possible damage; drainage and trap performance should be checked. The safest answer preserves automatic protection and relies on verified plant indications instead of forcing operation through an unresolved abnormal condition.

13. C — Confirm the discharge path is safe and the blowdown system is ready is the best response because blowdown releases hot water and steam with considerable energy, so the receiving system, valve sequence, and personnel clearance must be confirmed first. The safest answer preserves automatic protection and relies on verified plant indications instead of forcing operation through an unresolved abnormal condition.

14. A — The gauge or its connection may be defective and requires verification is the best response because visible steam production conflicts with a zero pressure indication, so the instrument and siphon or connection cannot be trusted until independently checked. The safest answer preserves automatic protection and relies on verified plant indications instead of forcing operation through an unresolved abnormal condition.

15. D — It shuts fuel flow when an acceptable flame is not proven is the best response because the safeguard prevents continued fuel admission after ignition failure or flame loss, reducing the chance that combustible fuel will accumulate in the furnace. The safest answer preserves automatic protection and relies on verified plant indications instead of forcing operation through an unresolved abnormal condition.

16. B — Reduce risk, isolate as appropriate, and assess the leak before continued operation is the best response because a leak may worsen under heat and pressure or indicate failed pressure parts, so safe isolation and qualified assessment take priority over maintaining output. The safest answer preserves protection and relies on plant indications instead of forcing operation through an unresolved abnormal condition.

17. B — Whether the valve is actually closing and the actuator linkage is intact is the best response because a commanded position does not prove mechanical closure; a loose linkage, failed actuator, or leaking valve can continue admitting heating medium. A HVAC response checks airflow and control fundamentals first, then confirms that the correction restores comfort without reducing ventilation or equipment protection.

18. A — Reduced airflow and increased fan-system resistance is the best response because a dirty filter restricts airflow, raises pressure loss, can reduce comfort and ventilation, and may cause coils or equipment to operate outside normal conditions. A disciplined HVAC response checks airflow and control fundamentals first, then confirms that the correction restores comfort without reducing ventilation or equipment protection.

19. C — The fan can start automatically and cause severe injury is the best response because automatic controls can start a fan without warning, so energy isolation and verification are required before hands or tools enter the moving-equipment area. A disciplined HVAC response checks airflow and control fundamentals first, then confirms that the correction restores comfort without reducing ventilation or equipment protection.

20. D — To use suitable outdoor air for cooling when conditions permit is the best response because an economizer reduces mechanical cooling demand by modulating outdoor and return air when outdoor conditions can help satisfy the cooling load. A disciplined HVAC response checks airflow and control fundamentals first, then confirms that the correction restores comfort without reducing ventilation or equipment protection.

21. B — Coil icing and reduced cooling capacity is the best response because low airflow reduces heat delivered to the coil, allowing its surface temperature to fall below freezing and ice to further block airflow. A disciplined HVAC response checks airflow and control fundamentals first, then confirms that the correction restores comfort without reducing ventilation or equipment protection.

22. C — Disconnect, lock out, and verify the fan's energy source is the best response because belt replacement exposes the worker to rotating parts and stored tension; verified energy isolation prevents unexpected startup while guards are removed. A disciplined HVAC response checks airflow and control fundamentals first, then confirms that the correction restores comfort without reducing ventilation or equipment protection.

23. A — The compressor starts and stops more frequently than intended is the best response because frequent cycling can result from control, airflow, charge, or load problems and stresses the compressor because repeated starts are electrically and mechanically demanding. A disciplined HVAC response checks airflow and control fundamentals first, then confirms that the correction restores comfort without reducing ventilation or equipment protection.

24. D — To allow drainage while preventing unwanted air movement through the drain is the best response because air-handler pressure can prevent drainage or pull air through an untrapped line, leading to overflow, leakage, and microbial growth in standing water. A HVAC response checks airflow and

control fundamentals first, then confirms that the correction restores comfort without reducing ventilation or equipment protection.

25. C — Inspect filter condition, dampers, and obvious duct restrictions is the best response because low delivery across several spaces suggests a shared airflow restriction or control position, so common components should be checked before individual terminals are replaced. A disciplined HVAC response checks airflow and control fundamentals first, then confirms that the correction restores comfort without reducing ventilation or equipment protection.

26. B — To deliver designed airflow to each served space is the best response because balancing adjusts dampers and outlets so measured airflow matches design needs, supporting comfort, ventilation, and stable operation throughout the system. A disciplined HVAC response checks airflow and control fundamentals first, then confirms that the correction restores comfort without reducing ventilation or equipment protection.

27. D — Refrigerants, pressure, electricity, and environmental controls create specialized hazards is the best response because refrigeration work can expose personnel to high pressure, electrical energy, cold burns, oxygen displacement, and regulated refrigerant handling requirements. A disciplined HVAC response checks airflow and control fundamentals first, then confirms that the correction restores comfort without reducing ventilation or equipment protection.

28. A — Prompt inspection of lubrication, alignment, mounting, and bearing condition is the best response because noise can be an early sign of inadequate lubrication, looseness, misalignment, or bearing damage; continued operation may enlarge the failure. A disciplined HVAC response checks airflow and control fundamentals first, then confirms that the correction restores comfort without reducing ventilation or equipment protection.

29. D — Required ventilation helps dilute indoor contaminants is the best response because occupied spaces generate carbon dioxide, odors, and other contaminants, so proper outdoor-air delivery is an important part of indoor air quality. A disciplined HVAC response checks airflow and control fundamentals first, then confirms that the correction restores comfort without reducing ventilation or equipment protection.

30. A — Proper tension, alignment, guard installation, and rotation is the best response because a new belt must track correctly without overloading bearings or slipping, and the guard must be restored before the unit returns to service. A disciplined HVAC response checks airflow and control fundamentals first, then confirms that the correction restores comfort without reducing ventilation or equipment protection.

31. C — De-energize, lock out as applicable, and verify absence of voltage is the best response because opening the circuit is not enough by itself; the worker must control the energy source and test for absence of voltage before touching conductors. Effective repair practice controls electrical and water energy, uses the correct test method, and proves the repaired system under operating conditions.

32. B — To provide a low-impedance fault-current path that helps protective devices operate is the best response because grounding connects exposed conductive parts to a fault path so a short circuit produces

enough current to open the breaker or fuse promptly. Effective repair practice controls electrical and water energy, uses the correct test method, and proves the repaired system under operating conditions.

33. C — Leave it off and locate the overload or fault before restoring service is the best response because repeated tripping indicates a continuing abnormal condition; defeating or upsizing protection without analysis can overheat conductors and create shock or fire hazards. Effective repair practice controls electrical and water energy, uses the correct test method, and proves the repaired system under operating conditions.

34. A — A properly rated voltage tester used according to its instructions is the best response because a tester provides electrical evidence, but it must be rated, checked, and used correctly because appearance and switch position cannot prove absence of voltage. Effective repair practice controls electrical and water energy, uses the correct test method, and proves the repaired system under operating conditions.

35. D — A worn or damaged sealing component inside the valve is the best response because a deteriorated washer, cartridge, seat, or seal can no longer stop flow completely, so internal inspection is more relevant than unrelated building systems. Effective repair practice controls electrical and water energy, uses the correct test method, and proves the repaired system under normal operating conditions.

36. B — Control water use, place a container below, and wear suitable protection is the best response because the trap contains wastewater and may release suddenly; controlling inflow and preparing containment reduces exposure, slipping, and property damage. Effective repair practice controls electrical and water energy, uses the correct test method, and proves the repaired system under normal operating conditions.

37. A — To retain a water seal that limits sewer-gas entry is the best response because the trap's standing water separates occupied space from the drainage system atmosphere; loss of the seal can allow odors and potentially harmful gases inside. Effective repair practice controls electrical and water energy, uses the correct test method, and proves the repaired system under normal operating conditions.

38. D — The valve's diaphragm or sealing mechanism for debris or wear is the best response because a flushometer that will not close usually has an internal sealing or bypass problem, so its water-control components should be inspected after isolation. Effective repair practice controls electrical and water energy, uses the correct test method, and proves the repaired system under normal operating conditions.

39. C — Electric shock from current leaking outside the intended circuit path is the best response because a GFCI compares current leaving and returning and opens rapidly when a difference suggests leakage through an unintended path, possibly a person. Effective repair practice controls electrical and water energy, uses the correct test method, and proves the repaired system under normal operating conditions.

40. B — The correct fuse protects conductors and equipment within their designed limits is the best response because installing an incorrect or oversized fuse can defeat overcurrent protection, allowing wiring or equipment to overheat before the fuse opens. Effective repair practice controls electrical and

water energy, uses the correct test method, and proves the repaired system under normal operating conditions.

41. B — Protect people, control electrical exposure, and isolate the water source safely is the best response because water contacting energized equipment creates an immediate shock and fire hazard; access should be controlled while qualified personnel isolate the involved systems. Effective repair practice controls electrical and water energy, uses the correct test method, and proves the repaired system under normal operating conditions.

42. D — A pressure surge commonly called water hammer is the best response because rapidly stopping moving water converts velocity into a pressure wave that can bang piping, loosen supports, and damage valves or fittings. Effective repair practice controls electrical and water energy, uses the correct test method, and proves the repaired system under normal operating conditions.

43. C — They are intended for temporary use and are vulnerable to damage and overload is the best response because flexible cords can be pinched, abraded, covered, or overloaded and do not provide the protected, fixed installation expected of permanent wiring. Effective repair practice controls electrical and water energy, uses the correct test method, and proves the repaired system under operating conditions.

44. A — Restore service gradually and inspect the joint under operating pressure is the best response because a repair is not proven until the system is returned carefully to service and checked for leakage, movement, and normal operation under pressure. Effective repair practice controls electrical and water energy, uses the correct test method, and proves the repaired system under normal operating conditions.

45. C — To let an occupant manually initiate a fire alarm is the best response because a pull station provides a recognizable manual means of reporting a fire so notification and emergency procedures can begin without waiting for detection. Any condition that can reduce detection, notification, suppression, emergency power, or egress capability must be treated as an impairment until protection is restored.

46. D — They are to limit smoke and fire spread when closed is the best response because a fire door is part of a compartmentation system; an wedge defeats its ability to close and protect corridors, stairs, or spaces. Any condition that can reduce detection, notification, suppression, emergency power, or egress capability must be treated as an impairment until protection is restored.

47. B — A system fault needs investigation even though an alarm condition is not indicated is the best response because trouble signals commonly identify loss of power, an open circuit, disabled component, or other impairment that can reduce system reliability. Any condition that can reduce detection, notification, suppression, power, or egress capability must be treated as an impairment until protection is restored.

48. A — Storage and obstructions that could block the discharge pattern is the best response because sprinkler effectiveness depends on heat reaching the element and water distributing across its intended area; nearby storage can delay operation or obstruct spray. Any condition that can reduce detection,

notification, suppression, emergency power, or egress capability must be treated as an impairment until protection is restored.

49. B — To provide hose connections for firefighting water within a building is the best response because standpipes provide a dependable internal water supply at hose outlets, reducing the distance firefighters must stretch hose from an exterior apparatus. Any condition that can reduce detection, notification, suppression, emergency power, or egress capability must be treated as an impairment until protection is restored.

50. D — Document the failure and arrange prompt correction while managing the affected risk is the best response because lighting must support safe egress when power is lost, so a failed unit represents an impairment requiring timely action and records. condition that can reduce detection, notification, suppression, emergency power, or egress capability must be treated as an impairment until protection is restored.

51. C — Obstructions can delay evacuation and increase trip or fire hazards is the best response because an exit path must remain recognizable and passable under stressful, low-visibility conditions; storage reduces clear width and can introduce additional fuel. Any condition that can reduce detection, notification, suppression, emergency power, or egress capability must be treated as an impairment until protection is restored.

52. A — Treat it as an impairment, notify responsible parties, and restore protection under procedure is the best response because a partly closed control valve can restrict sprinkler flow, so the condition requires controlled restoration, notification, and verification rather than informal adjustment. condition that can reduce detection, notification, suppression, power, or egress must be treated as an impairment until protection is restored.

53. A — To supply designated critical equipment when normal power fails is the best response because emergency power supports selected loads such as egress lighting, alarms, or other required systems; capacity and transfer arrangements are intentionally limited. Any condition that can reduce detection, notification, suppression, emergency power, or egress capability must be treated as an impairment until protection is restored.

54. D — Follow the emergency plan, support evacuation, and communicate system information is the best response because emergency procedures require coordinated life-safety actions and accurate information; routine work and convenience cannot take priority over evacuation and response. Any condition that can reduce detection, notification, suppression, emergency power, or egress capability must be treated as an impairment until protection is restored.

55. C — They document system condition, impairments, corrective action, and required follow-up is the best response because records create an accountable history that helps responsible parties identify overdue work, recurring defects, and whether protection was restored after a problem. Any condition that can reduce detection, notification, suppression, emergency power, or egress capability must be treated as an impairment until protection is restored.

56. B — Report and replace it promptly with the type while addressing the impairment is the best response because a missing extinguisher leaves the planned coverage incomplete; prompt replacement and documentation restore readiness without assuming an improvised substitute is suitable. Any condition that can reduce detection, notification, suppression, power, or egress capability must be treated as an impairment until protection is restored.

57. C — A shared supply, connection, or circuit problem is more likely than several lamp failures is the best response because when loads show the symptom together, a upstream component is a lead than unrelated failures at each fixture. A repeatable sequence of observations is more valuable than guessing because it links the reported symptom to a load, component, or operating state.

58. A — De-energize it and check for binding or a starting component is the best response because a stalled motor draws current and can overheat quickly, so energy should be removed before checking the load, bearings, or start circuit. A repeatable sequence of observations is more valuable than guessing because it links the reported symptom to a load, component, or operating state.

59. D — Local valve, air, trap, control, or terminal-unit conditions is the best response because normal heat nearby suggests the central source and much of the distribution path are working, narrowing the fault to the affected branch or terminal. A repeatable sequence of observations is more valuable than guessing because it links the reported symptom to a load, component, or operating state.

60. B — It reveals timing, conditions, and patterns that may not appear during inspection is the best response because intermittent failures can disappear before a technician arrives; loads, weather, alarms, sounds, and times help reproduce and isolate the condition. A repeatable sequence of observations is more valuable than guessing because it links the reported symptom to a load, component, or operating state.

61. B — Whether components were reassembled and the parts are aligned is the best response because a new symptom immediately after service often relates to the work performed, such as loose hardware, misalignment, damaged blades, or incorrect belt tension. A repeatable sequence of observations is more valuable than guessing because it links the reported symptom to a load, component, or operating state.

62. A — To determine whether the condition or the measuring device is faulty is the best response because troubleshooting depends on trustworthy evidence; an independent measurement can prevent unnecessary repairs caused by a failed sensor, gauge, or test instrument. A repeatable sequence of observations is more valuable than guessing because it links the reported symptom to a load, component, or operating state.

63. C — A partial downstream restriction that becomes evident at higher flow is the best response because a partly blocked drain may pass small flows but cannot carry combined discharge, causing water to rise at the lowest available opening. A repeatable sequence of observations is more valuable than guessing because it links the reported symptom to a load, component, or operating state.

64. D — De-energize and locate the short circuit or fault before another replacement is the best response because immediate repeat operation shows the fault remains; repeated replacement or oversized

protection risks conductor and equipment damage without correcting the cause. A repeatable sequence of observations is more valuable than guessing because it links the reported symptom to a load, component, or operating state.

65. C — Stop it and have rotation and wiring corrected before continued operation is the best response because incorrect rotation reduces performance and may affect motor cooling or equipment loading, so the installation should be corrected and safely. A repeatable sequence of observations is more valuable than guessing because it links the reported symptom to a specific load, component, or operating state.

66. B — They provide comparison values for recognizing deterioration and diagnosing future faults is the best response because normal amperage, pressure, temperature, vibration, and other trends make subtle changes easier to identify before they become major failures. A repeatable sequence of observations is more valuable than guessing because it links the reported symptom to a specific load, component, or operating state.

67. A — Roof, flashing, drain, or penetration above and up-slope of the stain is the best response because the weather-related pattern points to exterior water entry rather than an always-pressurized interior pipe, though water may travel before becoming visible. A repeatable sequence of observations is more valuable than guessing because it links the reported symptom to a load, component, or operating state.

68. D — It can resolve common faults efficiently without unnecessary disassembly or parts replacement is the best response because power availability, settings, filters, valves, and loose connections commonly explain symptoms and can be checked systematically before invasive work begins. A repeatable sequence of observations is more valuable than guessing because it links the reported symptom to a load, component, or operating state.

69. A — Restrict access, identify the material, and follow the applicable spill procedure is the best response because unknown materials may be corrosive, toxic, reactive, or infectious, so identification and controlled response must precede product selection and cleanup. Safe custodial work follows the product label and contamination-control plan while keeping occupants away from wet, reactive, or otherwise hazardous conditions.

70. C — The mixture can release dangerous toxic gases is the best response because combining incompatible cleaners can create hazardous airborne compounds; labels and safety information must be followed instead of improvising chemical mixtures. Safe custodial work follows the product label and contamination-control plan while keeping occupants away from wet, reactive, or otherwise hazardous conditions.

71. B — The period a surface must remain wet for the product to work as directed is the best response because disinfection depends on sufficient contact between the properly prepared product and the surface; wiping it away too soon can reduce effectiveness. Safe custodial work follows the product label and contamination-control plan while keeping occupants away from wet, reactive, or hazardous conditions.

72. D — Rinse or neutralize as directed and allow the clean floor to dry is the best response because residue, soil, or moisture can interfere with bonding and appearance, so the prepared surface must meet the finish manufacturer's requirements. Safe custodial work follows the product label and contamination-control plan while keeping occupants away from wet, reactive, or otherwise hazardous conditions.

73. D — They help prevent cross-contamination between areas is the best response because dedicated colors make it easier to keep restroom, food-service, classroom, and other tools separated, reducing transfer of soil and microorganisms. Safe custodial work follows the product label and contamination-control plan while keeping occupants away from wet, reactive, or otherwise hazardous conditions.

74. C — Control access, post clear warnings, and dry the area promptly is the best response because slip risk must be made visible and physically managed while the moisture is removed, especially where students and staff may approach unexpectedly. Safe custodial work follows the product label and contamination-control plan while keeping occupants away from wet, reactive, or otherwise hazardous conditions.

75. B — Correct concentration supports performance while limiting residue, damage, and exposure is the best response because too little product may not work, while excessive concentration can waste material, leave residue, damage surfaces, or increase worker and occupant exposure. Safe custodial work follows the product label and contamination-control plan while keeping occupants away from wet, reactive, or otherwise hazardous conditions.

76. A — Collect them in a designated manner and launder them before reuse is the best response because controlled collection prevents cross-contamination, while proper laundering removes soil and reduces microbial load before cloths return to service. Safe custodial work follows the product label and contamination-control plan while keeping occupants away from wet, reactive, or otherwise hazardous conditions.

77. B — Its condition, duty rating, footing, angle or setup, and surrounding hazards is the best response because a ladder must support the user and task on stable footing without defects, electrical exposure, door traffic, or an unsafe climbing configuration. Removing defective equipment from service and controlling stored energy are essential before a guard, jam, cord, wheel, or rotating part is handled.

78. C — Fragments can break away and cause impact injuries is the best response because deformed metal edges can chip when struck, sending sharp fragments toward the worker or bystanders; dressing or replacement is required before reuse. Removing defective equipment from service and controlling stored energy are essential before a guard, jam, cord, wheel, or rotating part is handled.

79. A — Use the guarded tool and method rather than removing the guard is the best response because a guard is to separate the user from moving parts and debris; task setup or tool selection should change instead of defeating protection. Removing defective equipment from service and controlling stored energy are essential before a guard, jam, cord, wheel, or part is handled.

80. D — Shut it down, isolate energy, and wait for moving parts to stop is the best response because stored rotation or restart can move the auger unexpectedly, so shutdown and energy control must occur before the obstruction is approached. Removing defective equipment from service and controlling stored energy are essential before a guard, jam, cord, wheel, or rotating part is handled.

81. D — It reduces slipping and damage to the fastener is the best response because a properly fitting wrench contacts the flats securely, allowing controlled torque while reducing rounded fasteners, knuckle injuries, and sudden loss of balance. Removing defective equipment from service and controlling stored energy are essential before a guard, jam, cord, wheel, or rotating part is handled.

82. B — Remove the cord from service and arrange proper repair or replacement is the best response because exposed conductors create shock, short-circuit, and fire hazards; temporary concealment does not restore insulation or strain relief to a safe condition. Removing defective equipment from service and controlling stored energy are essential before a guard, jam, cord, wheel, or rotating part is handled.

83. C — It supports the work and limits the gap where material could jam is the best response because a small, correctly adjusted gap helps control the workpiece and reduces the chance it will be pulled between the rest and grinding wheel. Removing equipment from service and controlling stored energy are essential before a guard, jam, cord, wheel, or part is handled.

84. A — Identify and correct moisture or adhesion causes, then remove loose material is the best response because new coating will fail if the source of peeling remains or unstable material is left beneath it, making diagnosis and preparation essential. Surface moisture, contamination, unstable coating, and incompatible materials should be resolved before application because a finish cannot compensate for a defective substrate.

85. A — It promotes adhesion, seals porosity, and supports a uniform finish is the best response because the appropriate primer creates a suitable bond between substrate and topcoat, reducing uneven absorption, staining, and premature coating failure. Surface moisture, contamination, unstable coating, and incompatible materials should be resolved before application because a finish cannot compensate for a defective substrate.

86. C — Allowing an edge to dry before the area is blended is the best response because working into a drying edge produces overlapping areas with different film thickness or sheen; maintaining a wet edge helps the coating level uniformly. Surface moisture, contamination, unstable coating, and incompatible materials should be resolved before application because a finish cannot compensate for a defective substrate.

87. D — Assess potential hazardous content and follow required controls is the best response because older coatings may contain hazardous materials, and uncontrolled sanding or heating can create contaminated dust or fumes requiring specialized procedures. Surface moisture, contamination, unstable coating, and incompatible materials should be resolved before application because a finish cannot compensate for a defective substrate.

88. B — Labels preserve hazard and use information while closures limit spills and vapors is the best response because proper identification supports safe selection and emergency response, while secure closures reduce evaporation, contamination, ignition risk, and accidental release. Surface moisture, contamination, unstable coating, and incompatible materials should be resolved before application because a finish cannot compensate for a defective substrate.

89. B — Protect occupants, restrict the area, and investigate the source using the procedure is the best response because an unknown odor may indicate a hazardous release, so exposure control and structured assessment must occur before routine comfort measures or continued occupancy. The preferred response controls the most harm first, communicates the disruption, and gathers the information needed for a lasting correction.

90. C — The exposed energized conductor because it presents the more immediate severe hazard is the best response because risk-based prioritization considers severity and immediacy; exposed electricity can cause fatal shock or fire and requires access control and qualified correction first. The preferred response controls the most serious harm first, communicates the disruption, and gathers the information needed for a lasting correction.

91. A — Compare schedules, loads, controls, and observations during that activity is the best response because the shared timing is evidence that occupancy, equipment use, or control schedules may contribute; targeted observation can test the pattern efficiently. The preferred response controls the most serious credible harm first, communicates the disruption, and gathers the information needed for a lasting correction.

92. D — Restrict access and obtain qualified evaluation before reopening the area is the best response because when structural or overhead stability is uncertain, temporary access control is a proportionate precaution while competent assessment determines the repair. The preferred response controls the most serious credible harm first, communicates the disruption, and gathers the information needed for a lasting correction.

93. B — Verified condition, safety, effectiveness, lifecycle cost, and operational impact is the best response because a defensible decision weighs evidence and consequences rather than one factor, helping the custodian engineer choose a safe and economical long-term solution. The preferred response controls the most serious credible harm first, communicates the disruption, and gathers the information needed for a lasting correction.

94. A — Verify usage history, inventory, unit quantities, price, and the operational need is the best response because review prevents overstock, waste, and errors while still allowing justified seasonal or project demand to be supported with reliable information. The calculation or record should be independently checked so commitments, receipts, and remaining funds agree before another expenditure is authorized.

95. C — \$1,794 is the best response because seventy-eight multiplied by twenty-three equals one thousand seven hundred ninety-four dollars, which can be checked as 1,560 plus 234. The calculation or record should be independently checked so commitments, receipts, and remaining funds agree before

another expenditure is authorized. The distractors either contradict the evidence, bypass a safeguard, or concern a different building function.

96. D — \$5,825 is the best response because nineteen thousand seven hundred fifty minus thirteen thousand nine hundred twenty-five leaves five thousand eight hundred twenty-five dollars. The calculation or record should be independently checked so commitments, receipts, and remaining funds agree before another expenditure is authorized. The distractors either contradict the evidence, bypass a safeguard, or concern a different building function.

97. A — To detect errors, document expenditures, and maintain an accurate available balance is the best response because timely reconciliation connects what was ordered, received, and paid, making missing goods, pricing errors, duplicate charges, and budget differences easier to correct. The calculation or record should be independently checked so commitments, receipts, and remaining funds agree before another expenditure is authorized.

98. D — Finish the inspection before occupancy and submit the form by 10:00 a.m. is the best response because the conjunction requires both actions, and each has a distinct timing condition; reading only the deadline would miss the occupancy restriction. Every stated condition remains operative unless the directive itself creates an exception, so the reader must not substitute custom, preference, or convenience.

99. B — Untrained employees must not operate the machine until trained is the best response because the word only limits operation to the trained group; experience or convenience does not create an exception that the memo does not state. Every stated condition remains operative unless the directive itself creates an exception, so the reader must not substitute custom, preference, or convenience.

100. C — All listed details because each can affect safe and completion is the best response because the location identifies the job, the symptom guides preparation, the restriction affects entry, and the deadline supports scheduling; omitting one can delay or compromise the response. Every condition remains unless the directive creates an exception, so the reader must not substitute custom, preference, or convenience.