

PRACTICE EXAM 5: ELEVATOR INDUSTRY APTITUDE TEST SIMULATION (100 QUESTIONS)

This original 100-question practice simulation covers basic arithmetic, reading comprehension, mechanical comprehension, and general tool knowledge. NEIEP publishes a minimum passing score of 70 percent but does not publish an official 100-question blueprint; use 70 correct as the practice benchmark. Choose the single best answer for each question.

1. A mechanic has 18 brackets and receives 27 more. How many brackets are available?
 - A. 35
 - B. 44
 - C. 55
 - D. 45

2. A 96-inch rail is cut into 8 equal pieces. How long is each piece?
 - A. 12
 - B. 8
 - C. 10
 - D. 16

3. What is 35 percent of 240?
 - A. 72
 - B. 84
 - C. 80
 - D. 96

4. A crew works 7.5 hours Monday and 8.25 hours Tuesday. What is the total?
 - A. 14.75
 - B. 15.5
 - C. 15.75
 - D. 16.25

5. Convert 6 feet 4 inches to inches.
 - A. 64
 - B. 76
 - C. 70
 - D. 84

6. A box holds 144 bolts in 12 equal rows. How many bolts are in each row?
- A. 12
 - B. 10
 - C. 14
 - D. 16
7. A part costs \$48 after a \$12 reduction. What was its original price?
- A. 36
 - B. 50
 - C. 58
 - D. 60
8. What is $\frac{3}{4}$ of 64?
- A. 16
 - B. 32
 - C. 48
 - D. 52
9. A 15-foot cable is shortened by 38 inches. How many inches remain?
- A. 132
 - B. 138
 - C. 142
 - D. 152
10. A lift travels 420 feet in 7 minutes. What is its average rate in feet per minute?
- A. 60
 - B. 50
 - C. 56
 - D. 70
11. Add $2\frac{1}{2}$ and $3\frac{3}{4}$.
- A. 5.25
 - B. 6.25
 - C. 5.75
 - D. 6.5

12. A rectangular platform is 9 feet long and 6 feet wide. What is its area?
- A. 15
 - B. 30
 - C. 60
 - D. 54
13. A \$320 order is divided equally among 5 jobs. What amount is charged to each job?
- A. 60
 - B. 65
 - C. 80
 - D. 64
14. Subtract 18.6 from 47.25.
- A. 27.65
 - B. 28.55
 - C. 28.65
 - D. 29.65
15. A crew completed 42 of 56 tasks. What percentage was completed?
- A. 75
 - B. 70
 - C. 72
 - D. 80
16. What is the perimeter of a rectangle measuring 11 feet by 7 feet?
- A. 18
 - B. 36
 - C. 28
 - D. 77
17. A 5-gallon container is filled to 60 percent capacity. How many gallons are inside?
- A. 2
 - B. 2.5
 - C. 4
 - D. 3

- 18.** Six identical fasteners weigh 9 pounds total. What is the weight of one fastener?
- A. 0.67
 - B. 1.25
 - C. 1.5
 - D. 3
- 19.** What is $\frac{7}{8}$ expressed as a decimal?
- A. 0.875
 - B. 0.78
 - C. 0.8
 - D. 0.925
- 20.** A worker starts at 7:20 a.m. and works 2 hours 45 minutes. When does the work end?
- A. 9:55 a.m.
 - B. 10:15 a.m.
 - C. 10:05 a.m.
 - D. 10:25 a.m.
- 21.** A spool has 250 feet of wire. After 86 feet are used, how many feet remain?
- A. 154
 - B. 164
 - C. 166
 - D. 174
- 22.** Evaluate $6 + 4 \times 5$ using standard order of operations.
- A. 26
 - B. 50
 - C. 30
 - D. 46
- 23.** A slope rises 3 inches for every 12 inches of run. What is the rise for 48 inches of run?
- A. 9
 - B. 15
 - C. 16
 - D. 12

24. What is the average of 12, 18, 21, and 29?

- A. 18
- B. 20
- C. 19
- D. 21

25. A quantity increases from 80 to 92. What is the percent increase?

- A. 12
- B. 15.5
- C. 20
- D. 15

26. Read the passage: Before starting the hoist inspection, Lena locked out the disconnect, tested for absence of voltage, and attached her identification tag. She then told Omar that the inspection could begin only after he verified the barricade around the work area. Question: What did Lena do immediately before attaching her identification tag?

- A. Inspected the hoist brake
- B. Tested for absence of voltage
- C. Removed the barricade
- D. Called the dispatcher

27. Read the passage: Before starting the hoist inspection, Lena locked out the disconnect, tested for absence of voltage, and attached her identification tag. She then told Omar that the inspection could begin only after he verified the barricade around the work area. Question: Who was asked to verify the barricade?

- A. Omar
- B. Lena
- C. The dispatcher
- D. The building owner

28. Read the passage: Before starting the hoist inspection, Lena locked out the disconnect, tested for absence of voltage, and attached her identification tag. She then told Omar that the inspection could begin only after he verified the barricade around the work area. Question: According to the passage, when could the inspection begin?

- A. After the tag was removed
- B. Before voltage was tested
- C. After Omar verified the barricade
- D. When the owner arrived

29. Read the passage: Before starting the hoist inspection, Lena locked out the disconnect, tested for absence of voltage, and attached her identification tag. She then told Omar that the inspection could begin only after he verified the barricade around the work area. Question: The sequence mainly emphasizes which work habit?

- A. Finishing work without records
- B. Working alone whenever possible
- C. Following safety steps in order
- D. Replacing inspection with conversation

30. Read the passage: Before starting the hoist inspection, Lena locked out the disconnect, tested for absence of voltage, and attached her identification tag. She then told Omar that the inspection could begin only after he verified the barricade around the work area. Question: In the passage, 'absence' most nearly means what?

- A. Nonexistence
- B. Increase
- C. Measurement
- D. Warning

31. Read the passage: The delivery included two guide rails, four cartons of fasteners, and one damaged crate. Malik photographed the crate before opening it, counted the usable parts, and reported three missing brackets to the supervisor. Question: How many cartons of fasteners arrived?

- A. Two
- B. Three
- C. Five
- D. Four

32. Read the passage: The delivery included two guide rails, four cartons of fasteners, and one damaged crate. Malik photographed the crate before opening it, counted the usable parts, and reported three missing brackets to the supervisor. Question: What was damaged?

- A. Both guide rails
- B. One crate
- C. Three brackets
- D. The camera

33. Read the passage: The delivery included two guide rails, four cartons of fasteners, and one damaged crate. Malik photographed the crate before opening it, counted the usable parts, and reported three missing brackets to the supervisor. Question: Why did Malik photograph the crate before opening it?

- A. To measure the rails
- B. To order lunch
- C. To test the fasteners
- D. To document its condition

34. Read the passage: The delivery included two guide rails, four cartons of fasteners, and one damaged crate. Malik photographed the crate before opening it, counted the usable parts, and reported three missing brackets to the supervisor. Question: What did Malik report missing?

- A. Four cartons
- B. Two rails
- C. Three brackets
- D. One supervisor

35. Read the passage: The delivery included two guide rails, four cartons of fasteners, and one damaged crate. Malik photographed the crate before opening it, counted the usable parts, and reported three missing brackets to the supervisor. Question: Which action best shows verification of the shipment?

- A. Counting the usable parts
- B. Opening the camera
- C. Moving the supervisor
- D. Discarding all cartons

36. Read the passage: The morning crew will lubricate the door rollers on floors two through six. The afternoon crew will test door operation on those floors and record any unusual noise. Repairs requiring replacement parts will be scheduled after the records are reviewed. Question: Which floors receive lubrication?

- A. Only floor one
- B. Floors two through six
- C. Floors seven through ten
- D. Every floor except six

37. Read the passage: The morning crew will lubricate the door rollers on floors two through six. The afternoon crew will test door operation on those floors and record any unusual noise. Repairs requiring replacement parts will be scheduled after the records are reviewed. Question: What will the afternoon crew record?

- A. Employee vacation time
- B. Building rent
- C. Any unusual noise
- D. Outdoor temperature

38. Read the passage: The morning crew will lubricate the door rollers on floors two through six. The afternoon crew will test door operation on those floors and record any unusual noise. Repairs requiring replacement parts will be scheduled after the records are reviewed. Question: When will replacement-part repairs be scheduled?

- A. Before lubrication begins
- B. After the records are reviewed
- C. During the morning briefing
- D. Before any testing

39. Read the passage: The morning crew will lubricate the door rollers on floors two through six. The afternoon crew will test door operation on those floors and record any unusual noise. Repairs requiring replacement parts will be scheduled after the records are reviewed. Question: What is the afternoon crew's main task?

- A. Ordering new elevators
- B. Painting guide rails
- C. Removing all rollers
- D. Testing door operation

40. Read the passage: The morning crew will lubricate the door rollers on floors two through six. The afternoon crew will test door operation on those floors and record any unusual noise. Repairs requiring replacement parts will be scheduled after the records are reviewed. Question: The word 'requiring' most nearly means what?

- A. Needing
- B. Preventing
- C. Ignoring
- D. Completing

41. Read the passage: A service notice states that the west elevator will remain out of service until 3:00 p.m. Technicians may use the machine room, but building staff must keep passengers away from the landing doors. Deliveries should use the east elevator. Question: Until what time is the west elevator out of service?

- A. Noon
- B. 2:00 p.m.
- C. 3:00 p.m.
- D. 5:00 p.m.

42. Read the passage: A service notice states that the west elevator will remain out of service until 3:00 p.m. Technicians may use the machine room, but building staff must keep passengers away from the landing doors. Deliveries should use the east elevator. Question: Who must keep passengers away from the landing doors?

- A. Delivery drivers
- B. Passengers
- C. Only technicians
- D. Building staff

43. Read the passage: A service notice states that the west elevator will remain out of service until 3:00 p.m. Technicians may use the machine room, but building staff must keep passengers away from the landing doors. Deliveries should use the east elevator. Question: Which elevator should deliveries use?

- A. The west elevator
- B. The east elevator
- C. Either elevator
- D. No elevator

44. Read the passage: A service notice states that the west elevator will remain out of service until 3:00 p.m. Technicians may use the machine room, but building staff must keep passengers away from the landing doors. Deliveries should use the east elevator. Question: Who may use the machine room?

- A. Technicians
- B. All passengers
- C. Delivery customers
- D. Only building visitors

45. Read the passage: A service notice states that the west elevator will remain out of service until 3:00 p.m. Technicians may use the machine room, but building staff must keep passengers away from the landing doors. Deliveries should use the east elevator. Question: What is the notice's primary purpose?

- A. To advertise a new elevator
- B. To direct safe activity during an outage
- C. To announce employee pay
- D. To describe building history

46. Read the passage: During the test, the car stopped level at floors one and two but rested half an inch low at floor three. Priya repeated the third-floor test twice and obtained the same result. She recorded the measurements and requested an adjustment. Question: At which floor did the car stop low?

- A. Floor three
- B. Floor one
- C. Floor two
- D. Every floor

47. Read the passage: During the test, the car stopped level at floors one and two but rested half an inch low at floor three. Priya repeated the third-floor test twice and obtained the same result. She recorded the measurements and requested an adjustment. Question: How far below level did the car rest?

- A. One-quarter inch
- B. One inch
- C. Two inches
- D. One-half inch

48. Read the passage: During the test, the car stopped level at floors one and two but rested half an inch low at floor three. Priya repeated the third-floor test twice and obtained the same result. She recorded the measurements and requested an adjustment. Question: How many times did Priya repeat the third-floor test?

- A. Once
- B. Three times
- C. Twice
- D. Four times

49. Read the passage: During the test, the car stopped level at floors one and two but rested half an inch low at floor three. Priya repeated the third-floor test twice and obtained the same result. She recorded the measurements and requested an adjustment. Question: Why is the repeated result important?

- A. It proves no adjustment is needed
- B. It changes the measured distance
- C. It shows the observation was consistent
- D. It identifies a passenger

50. Read the passage: During the test, the car stopped level at floors one and two but rested half an inch low at floor three. Priya repeated the third-floor test twice and obtained the same result. She recorded the measurements and requested an adjustment. Question: What did Priya request?

- A. An adjustment
- B. A delivery
- C. A new building
- D. A lunch break

51. Two meshed external gears turn. If the driving gear turns clockwise, how does the driven gear turn?

- A. Clockwise
- B. It does not turn
- C. Randomly
- D. Counterclockwise

52. A longer wrench is used with the same hand force. What happens to torque?

- A. Torque decreases
- B. Torque increases
- C. Torque becomes zero
- D. Torque is unchanged

53. A fixed pulley is ideal and frictionless. What is its main advantage?

- A. It doubles the load
- B. It stores energy
- C. It eliminates the rope
- D. It changes force direction

54. In a hydraulic system, pressure applied to a confined fluid is transmitted how?
- A. Only upward
 - B. Equally throughout the fluid
 - C. Only near the pump
 - D. As electrical current
55. Which center of gravity gives an object the greatest resistance to tipping?
- A. A low center of gravity
 - B. A high center of gravity
 - C. A center beyond its base
 - D. An unknown center
56. A small gear drives a larger gear. Compared with the small gear, the larger gear usually turns how?
- A. Faster with less torque
 - B. At identical speed and torque
 - C. More slowly with greater torque
 - D. Without any torque
57. What happens to metal when its temperature generally increases?
- A. It always contracts
 - B. It loses all mass
 - C. It expands
 - D. It becomes a liquid immediately
58. For a balanced first-class lever, moving the effort farther from the fulcrum has what effect?
- A. More effort force is needed
 - B. Less effort force is needed
 - C. The load gains mass
 - D. The fulcrum disappears
59. Why are ball bearings placed between moving surfaces?
- A. To increase weight
 - B. To prevent all rotation
 - C. To create heat
 - D. To reduce friction

- 60.** In an open electrical circuit, what happens to current?
- A. Current stops
 - B. Current doubles
 - C. Voltage becomes mass
 - D. Resistance vanishes
- 61.** Two identical springs support a load in parallel. Compared with one spring, the pair is generally what?
- A. Weaker in every case
 - B. Unable to compress
 - C. Stiffer
 - D. Twice as long
- 62.** If a belt on two pulleys is crossed, the pulleys rotate in what relationship?
- A. The same direction
 - B. No fixed direction
 - C. Only clockwise
 - D. Opposite directions
- 63.** Why does lubrication reduce wear between sliding parts?
- A. It roughens both surfaces
 - B. It separates surfaces with a film
 - C. It increases direct contact
 - D. It removes all load
- 64.** A wide base improves the stability of a freestanding object because it does what?
- A. Keeps the weight line within the base longer
 - B. Raises the center of gravity
 - C. Eliminates gravity
 - D. Makes the object weightless
- 65.** A wedge converts an applied force mainly into forces directed how?
- A. Only backward
 - B. In a circular path
 - C. Outward along its sides
 - D. Into electrical flow

- 66.** When a fluid flows through a narrower section of a pipe, its speed generally does what?
- A. Decreases to zero
 - B. Increases
 - C. Becomes unrelated to area
 - D. Reverses automatically
- 67.** Which simple machine is a threaded fastener?
- A. A pulley
 - B. A wheel only
 - C. A smooth plane
 - D. A screw
- 68.** If the same force acts on half the area, what happens to pressure?
- A. Pressure doubles
 - B. Pressure halves
 - C. Pressure is unchanged
 - D. Pressure becomes zero
- 69.** Why does a counterweight reduce the motor effort needed to raise an elevator car?
- A. It removes cable tension
 - B. It increases car mass
 - C. It locks the drive sheave
 - D. It offsets much of the car load
- 70.** What form of energy is stored in a compressed spring?
- A. Elastic potential energy
 - B. Chemical energy only
 - C. Nuclear energy
 - D. Sound energy only
- 71.** If friction in a machine increases while input stays the same, useful efficiency generally does what?
- A. Increases without limit
 - B. Remains exactly constant
 - C. Decreases
 - D. Becomes greater than 100 percent

72. A load is centered directly over a support. Which condition is most likely?
- A. The load must rotate
 - B. The load is stable
 - C. The support has no force
 - D. Gravity acts sideways
73. What happens when like magnetic poles are brought together?
- A. They attract
 - B. They repel
 - C. They melt
 - D. They lose all mass
74. A fuse opens a circuit primarily when what occurs?
- A. Voltage is merely present
 - B. A switch is labeled
 - C. Current becomes excessive
 - D. The wire is long
75. Why is a triangular brace used in a frame?
- A. It resists shape change
 - B. It guarantees motion
 - C. It removes all joints
 - D. It increases flexibility
76. Which tool is best for tightening a hex-head bolt to a specified torque?
- A. A cold chisel
 - B. A pry bar
 - C. A handsaw
 - D. A torque wrench
77. Which tool is designed to measure an outside diameter accurately?
- A. An outside micrometer
 - B. A framing square
 - C. A plumb bob
 - D. A paint scraper

- 78.** What tool is commonly used to grip and turn round pipe?
- A. A wood rasp
 - B. A tack hammer
 - C. A pipe wrench
 - D. A chalk line
- 79.** Which screwdriver fits a cross-shaped screw recess?
- A. A slotted screwdriver
 - B. A hex key
 - C. A nail set
 - D. A Phillips screwdriver
- 80.** Which tool checks whether a surface is horizontal?
- A. A center punch
 - B. A spirit level
 - C. A tubing cutter
 - D. A wire brush
- 81.** What should be done before changing a blade on a portable power saw?
- A. Increase blade speed
 - B. Disconnect its power source
 - C. Hold the trigger on
 - D. Remove the blade guard permanently
- 82.** Which tool makes a starting indentation for drilling metal?
- A. A putty knife
 - B. A pipe reamer
 - C. A center punch
 - D. A rubber mallet
- 83.** What is the safest response to a mushroomed chisel head?
- A. Strike it harder
 - B. Cool it with bare hands
 - C. Use its side as a hammer
 - D. Remove it from service until dressed or replaced

- 84.** Which tool is best for cutting external threads on a metal rod?
- A. A die
 - B. A tap
 - C. A file card
 - D. A countersink
- 85.** Which tool cuts internal threads in a drilled hole?
- A. A die
 - B. A claw hammer
 - C. A bearing puller
 - D. A tap
- 86.** What does a wire stripper do?
- A. Removes insulation without nicking the conductor
 - B. Cuts pipe threads
 - C. Measures air pressure
 - D. Squares a wooden board
- 87.** Which wrench surrounds most sides of a hex fastener and reduces slipping?
- A. An open hook
 - B. A flat file
 - C. A box-end wrench
 - D. A coping saw
- 88.** Why should the correct-size socket be used on a fastener?
- A. To increase electrical voltage
 - B. To reduce rounding and slipping
 - C. To soften the fastener
 - D. To eliminate all torque
- 89.** Which tool is used to remove material and smooth a metal edge by hand?
- A. A plumb bob
 - B. A grease gun
 - C. A soldering iron
 - D. A file

- 90.** What is a feeler gauge used to measure?
- A. A small gap or clearance
 - B. A long travel distance
 - C. A fluid volume
 - D. A wire's color
- 91.** Which hammer is commonly paired with chisels and punches in metalwork?
- A. A soft paint brush
 - B. A drywall knife
 - C. A ball-peen hammer
 - D. A wooden rule
- 92.** Which tool helps mark a long straight line on a surface?
- A. A pipe wrench
 - B. A bearing separator
 - C. A chalk line
 - D. A tap handle
- 93.** What should be inspected on an extension cord before use?
- A. Only its color
 - B. The plug, insulation, and grounding condition
 - C. Only the package label
 - D. The worker's handwriting
- 94.** Which tool is used to pull a gear or bearing from a shaft?
- A. A caulking gun
 - B. A masonry trowel
 - C. A hand plane
 - D. A gear puller
- 95.** Why are safety glasses worn while grinding?
- A. To improve motor speed
 - B. To protect eyes from flying particles
 - C. To sharpen the wheel
 - D. To reduce tool voltage

96. Which tool verifies a right angle?

- A. A try square
- B. A pipe die
- C. A grease fitting
- D. A wire nut

97. What is the purpose of a bench vise?

- A. To measure voltage
- B. To cut internal threads
- C. To hold work securely
- D. To lift personnel

98. Which tool is suitable for tightening a recessed hex socket screw?

- A. A flat pry bar
- B. A hex key
- C. A wood chisel
- D. A pipe cutter

99. Why should a grinder wheel's rated speed meet or exceed the grinder speed?

- A. To prevent wheel failure from overspeed
- B. To make the cord longer
- C. To lower room temperature
- D. To change wheel color

100. Which tool checks electrical potential difference?

- A. A torque wrench
- B. A thread pitch gauge
- C. A plumb bob
- D. A voltmeter

PRACTICE EXAM 5: ANSWER KEY AND EXPLANATIONS

- 1. D** - The correct answer is D. Compute directly from the quantities in the stem. The required calculation gives 45. Applying the stated operation and units carefully produces this result; the alternatives arise from reversing an operation, omitting a conversion, or making a common arithmetic error. Review the stated facts and reject choices that use a different rule or unsupported detail.
- 2. A** - The correct answer is A. Compute directly from the quantities in the stem. The required calculation gives 12. Applying the stated operation and units carefully produces this result; the alternatives arise from reversing an operation, omitting a conversion, or making a common arithmetic error. Review the stated facts and reject choices that use a different rule or unsupported detail.
- 3. B** - The correct answer is B. Compute directly from the quantities in the stem. The required calculation gives 84. Applying the stated operation and units carefully produces this result; the alternatives arise from reversing an operation, omitting a conversion, or making a common arithmetic error. Review the stated facts and reject choices that use a different rule or unsupported detail.
- 4. C** - The correct answer is C. Compute directly from the quantities in the stem. The required calculation gives 15.75. Applying the stated operation and units carefully produces this result; the alternatives arise from reversing an operation, omitting a conversion, or making a common arithmetic error. Review the stated facts and reject choices that use a different rule or unsupported detail.
- 5. B** - The correct answer is B. Compute directly from the quantities in the stem. The required calculation gives 76. Applying the stated operation and units carefully produces this result; the alternatives arise from reversing an operation, omitting a conversion, or making a common arithmetic error. Review the stated facts and reject choices that use a different rule or unsupported detail.
- 6. A** - The correct answer is A. Compute directly from the quantities in the stem. The required calculation gives 12. Applying the stated operation and units carefully produces this result; the alternatives arise from reversing an operation, omitting a conversion, or making a common arithmetic error. Review the stated facts and reject choices that use a different rule or unsupported detail.
- 7. D** - The correct answer is D. Compute directly from the quantities in the stem. The required calculation gives 60. Applying the stated operation and units carefully produces this result; the alternatives arise from reversing an operation, omitting a conversion, or making a common arithmetic error. Review the stated facts and reject choices that use a different rule or unsupported detail.
- 8. C** - The correct answer is C. Compute directly from the quantities in the stem. The required calculation gives 48. Applying the stated operation and units carefully produces this result; the alternatives arise from reversing an operation, omitting a conversion, or making a common arithmetic error. Review the stated facts and reject choices that use a different rule or unsupported detail.
- 9. C** - The correct answer is C. Compute directly from the quantities in the stem. The required calculation gives 142. Applying the stated operation and units carefully produces this result; the alternatives arise from reversing an operation, omitting a conversion, or making a common arithmetic error. Review the stated facts and reject choices that use a different rule or unsupported detail.
- 10. A** - The correct answer is A. Compute directly from the quantities in the stem. The required calculation gives 60. Applying the stated operation and units carefully produces this result; the alternatives arise from reversing an operation, omitting a conversion, or making a common arithmetic error. Review the stated facts and reject choices that use a different rule or unsupported detail.

11. B - The correct answer is B. Compute directly from the quantities in the stem. The required calculation gives 6.25. Applying the stated operation and units carefully produces this result; the alternatives arise from reversing an operation, omitting a conversion, or making a common arithmetic error. Review the stated facts and reject choices that use a different rule or unsupported detail.

12. D - The correct answer is D. Compute directly from the quantities in the stem. The required calculation gives 54. Applying the stated operation and units carefully produces this result; the alternatives arise from reversing an operation, omitting a conversion, or making a common arithmetic error. Review the stated facts and reject choices that use a different rule or unsupported detail.

13. D - The correct answer is D. Compute directly from the quantities in the stem. The required calculation gives 64. Applying the stated operation and units carefully produces this result; the alternatives arise from reversing an operation, omitting a conversion, or making a common arithmetic error. Review the stated facts and reject choices that use a different rule or unsupported detail.

14. C - The correct answer is C. Compute directly from the quantities in the stem. The required calculation gives 28.65. Applying the stated operation and units carefully produces this result; the alternatives arise from reversing an operation, omitting a conversion, or making a common arithmetic error. Review the stated facts and reject choices that use a different rule or unsupported detail.

15. A - The correct answer is A. Compute directly from the quantities in the stem. The required calculation gives 75. Applying the stated operation and units carefully produces this result; the alternatives arise from reversing an operation, omitting a conversion, or making a common arithmetic error. Review the stated facts and reject choices that use a different rule or unsupported detail.

16. B - The correct answer is B. Compute directly from the quantities in the stem. The required calculation gives 36. Applying the stated operation and units carefully produces this result; the alternatives arise from reversing an operation, omitting a conversion, or making a common arithmetic error. Review the stated facts and reject choices that use a different rule or unsupported detail.

17. D - The correct answer is D. Compute directly from the quantities in the stem. The required calculation gives 3. Applying the stated operation and units carefully produces this result; the alternatives arise from reversing an operation, omitting a conversion, or making a common arithmetic error. Review the stated facts and reject choices that use a different rule or unsupported detail.

18. C - The correct answer is C. Compute directly from the quantities in the stem. The required calculation gives 1.5. Applying the stated operation and units carefully produces this result; the alternatives arise from reversing an operation, omitting a conversion, or making a common arithmetic error. Review the stated facts and reject choices that use a different rule or unsupported detail.

19. A - The correct answer is A. Compute directly from the quantities in the stem. The required calculation gives 0.875. Applying the stated operation and units carefully produces this result; the alternatives arise from reversing an operation, omitting a conversion, or making a common arithmetic error. Review the stated facts and reject choices that use a different rule or unsupported detail.

20. C - The correct answer is C. Compute directly from the quantities in the stem. The required calculation gives 10:05 a.m. Applying the stated operation and units carefully produces this result; the alternatives arise from reversing an operation, omitting a conversion, or making a common arithmetic error. Review the stated facts and reject choices that use a different rule or unsupported detail.

21. B - The correct answer is B. Compute directly from the quantities in the stem. The required calculation gives 164. Applying the stated operation and units carefully produces this result; the alternatives arise from reversing

an operation, omitting a conversion, or making a common arithmetic error. Review the stated facts and reject choices that use a different rule or unsupported detail.

22. A - The correct answer is A. Compute directly from the quantities in the stem. The required calculation gives 26. Applying the stated operation and units carefully produces this result; the alternatives arise from reversing an operation, omitting a conversion, or making a common arithmetic error. Review the stated facts and reject choices that use a different rule or unsupported detail.

23. D - The correct answer is D. Compute directly from the quantities in the stem. The required calculation gives 12. Applying the stated operation and units carefully produces this result; the alternatives arise from reversing an operation, omitting a conversion, or making a common arithmetic error. Review the stated facts and reject choices that use a different rule or unsupported detail.

24. B - The correct answer is B. Compute directly from the quantities in the stem. The required calculation gives 20. Applying the stated operation and units carefully produces this result; the alternatives arise from reversing an operation, omitting a conversion, or making a common arithmetic error. Review the stated facts and reject choices that use a different rule or unsupported detail.

25. D - The correct answer is D. Compute directly from the quantities in the stem. The required calculation gives 15. Applying the stated operation and units carefully produces this result; the alternatives arise from reversing an operation, omitting a conversion, or making a common arithmetic error. Review the stated facts and reject choices that use a different rule or unsupported detail.

26. B - The correct answer is B. The passage directly supports Tested for absence of voltage. This choice follows the stated sequence, person, quantity, purpose, or meaning without adding information. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result. Units and wording matter.

27. A - The correct answer is A. The passage directly supports Omar. This choice follows the stated sequence, person, quantity, purpose, or meaning without adding information. The other options conflict with an explicit detail or make an inference that the passage does not justify. Review the stated facts and reject choices that use a different rule or unsupported detail.

28. C - The correct answer is C. The passage directly supports After Omar verified the barricade. This choice follows the stated sequence, person, quantity, purpose, or meaning without adding information. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result. Units and wording matter.

29. C - The correct answer is C. The passage directly supports Following safety steps in order. This choice follows the stated sequence, person, quantity, purpose, or meaning without adding information. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result. Units and wording matter.

30. A - The correct answer is A. The passage directly supports Nonexistence. This choice follows the stated sequence, person, quantity, purpose, or meaning without adding information. The other options conflict with an explicit detail or make an inference that the passage does not justify. Review the stated facts and reject choices that use a different rule or unsupported detail.

31. D - The correct answer is D. The passage directly supports Four. This choice follows the stated sequence, person, quantity, purpose, or meaning without adding information. The other options conflict with an explicit detail or make an inference that the passage does not justify. Review the stated facts and reject choices that use a different rule or unsupported detail.

32. B - The correct answer is B. The passage directly supports One crate. This choice follows the stated sequence, person, quantity, purpose, or meaning without adding information. The other options conflict with an explicit detail or make an inference that the passage does not justify. Review the stated facts and reject choices that use a different rule or unsupported detail.

33. D - The correct answer is D. The passage directly supports To document its condition. This choice follows the stated sequence, person, quantity, purpose, or meaning without adding information. The other options conflict with an explicit detail or make an inference that the passage does not justify. Review the stated facts and reject choices that use a different rule or unsupported detail.

34. C - The correct answer is C. The passage directly supports Three brackets. This choice follows the stated sequence, person, quantity, purpose, or meaning without adding information. The other options conflict with an explicit detail or make an inference that the passage does not justify. Review the stated facts and reject choices that use a different rule or unsupported detail.

35. A - The correct answer is A. The passage directly supports Counting the usable parts. This choice follows the stated sequence, person, quantity, purpose, or meaning without adding information. The other options conflict with an explicit detail or make an inference that the passage does not justify. Review the stated facts and reject choices that use a different rule or unsupported detail.

36. B - The correct answer is B. The passage directly supports Floors two through six. This choice follows the stated sequence, person, quantity, purpose, or meaning without adding information. The other options conflict with an explicit detail or make an inference that the passage does not justify. Review the stated facts and reject choices that use a different rule or unsupported detail.

37. C - The correct answer is C. The passage directly supports Any unusual noise. This choice follows the stated sequence, person, quantity, purpose, or meaning without adding information. The other options conflict with an explicit detail or make an inference that the passage does not justify. Review the stated facts and reject choices that use a different rule or unsupported detail.

38. B - The correct answer is B. The passage directly supports After the records are reviewed. This choice follows the stated sequence, person, quantity, purpose, or meaning without adding information. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result. Units and wording matter.

39. D - The correct answer is D. The passage directly supports Testing door operation. This choice follows the stated sequence, person, quantity, purpose, or meaning without adding information. The other options conflict with an explicit detail or make an inference that the passage does not justify. Review the stated facts and reject choices that use a different rule or unsupported detail.

40. A - The correct answer is A. The passage directly supports Needing. This choice follows the stated sequence, person, quantity, purpose, or meaning without adding information. The other options conflict with an explicit detail or make an inference that the passage does not justify. Review the stated facts and reject choices that use a different rule or unsupported detail.

41. C - The correct answer is C. The passage directly supports 3:00 p.m. This choice follows the stated sequence, person, quantity, purpose, or meaning without adding information. The other options conflict with an explicit detail or make an inference that the passage does not justify. Review the stated facts and reject choices that use a different rule or unsupported detail.

42. D - The correct answer is D. The passage directly supports Building staff. This choice follows the stated sequence, person, quantity, purpose, or meaning without adding information. The other options conflict with an

explicit detail or make an inference that the passage does not justify. Review the stated facts and reject choices that use a different rule or unsupported detail.

43. B - The correct answer is B. The passage directly supports The east elevator. This choice follows the stated sequence, person, quantity, purpose, or meaning without adding information. The other options conflict with an explicit detail or make an inference that the passage does not justify. Review the stated facts and reject choices that use a different rule or unsupported detail.

44. A - The correct answer is A. The passage directly supports Technicians. This choice follows the stated sequence, person, quantity, purpose, or meaning without adding information. The other options conflict with an explicit detail or make an inference that the passage does not justify. Review the stated facts and reject choices that use a different rule or unsupported detail.

45. B - The correct answer is B. The passage directly supports To direct safe activity during an outage. This choice follows the stated sequence, person, quantity, purpose, or meaning without adding information. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.

46. A - The correct answer is A. The passage directly supports Floor three. This choice follows the stated sequence, person, quantity, purpose, or meaning without adding information. The other options conflict with an explicit detail or make an inference that the passage does not justify. Review the stated facts and reject choices that use a different rule or unsupported detail.

47. D - The correct answer is D. The passage directly supports One-half inch. This choice follows the stated sequence, person, quantity, purpose, or meaning without adding information. The other options conflict with an explicit detail or make an inference that the passage does not justify. Review the stated facts and reject choices that use a different rule or unsupported detail.

48. C - The correct answer is C. The passage directly supports Twice. This choice follows the stated sequence, person, quantity, purpose, or meaning without adding information. The other options conflict with an explicit detail or make an inference that the passage does not justify. Review the stated facts and reject choices that use a different rule or unsupported detail.

49. C - The correct answer is C. The passage directly supports It shows the observation was consistent. This choice follows the stated sequence, person, quantity, purpose, or meaning without adding information. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result. Units and wording matter.

50. A - The correct answer is A. The passage directly supports An adjustment. This choice follows the stated sequence, person, quantity, purpose, or meaning without adding information. The other options conflict with an explicit detail or make an inference that the passage does not justify. Review the stated facts and reject choices that use a different rule or unsupported detail.

51. D - The correct answer is D. Counterclockwise follows from the mechanical relationship described in the stem. The relevant principle concerns force, motion, pressure, energy, friction, stability, or machine advantage. Each distractor either reverses that relationship or describes an effect that the stated arrangement cannot produce. Review the stated facts and reject choices that use a different rule or unsupported detail.

52. B - The correct answer is B. Torque increases follows from the mechanical relationship described in the stem. The relevant principle concerns force, motion, pressure, energy, friction, stability, or machine advantage. Each distractor either reverses that relationship or describes an effect that the stated arrangement cannot produce. Review the stated facts and reject choices that use a different rule or unsupported detail.

53. D - The correct answer is D. It changes force direction follows from the mechanical relationship described in the stem. The relevant principle concerns force, motion, pressure, energy, friction, stability, or machine advantage. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.

54. B - The correct answer is B. Equally throughout the fluid follows from the mechanical relationship described in the stem. The relevant principle concerns force, motion, pressure, energy, friction, stability, or machine advantage. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.

55. A - The correct answer is A. A low center of gravity follows from the mechanical relationship described in the stem. The relevant principle concerns force, motion, pressure, energy, friction, stability, or machine advantage. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.

56. C - The correct answer is C. More slowly with greater torque follows from the mechanical relationship described in the stem. The relevant principle concerns force, motion, pressure, energy, friction, stability, or machine advantage. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.

57. C - The correct answer is C. It expands follows from the mechanical relationship described in the stem. The relevant principle concerns force, motion, pressure, energy, friction, stability, or machine advantage. Each distractor either reverses that relationship or describes an effect that the stated arrangement cannot produce. Review the stated facts and reject choices that use a different rule or unsupported detail.

58. B - The correct answer is B. Less effort force is needed follows from the mechanical relationship described in the stem. The relevant principle concerns force, motion, pressure, energy, friction, stability, or machine advantage. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.

59. D - The correct answer is D. To reduce friction follows from the mechanical relationship described in the stem. The relevant principle concerns force, motion, pressure, energy, friction, stability, or machine advantage. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.

60. A - The correct answer is A. Current stops follows from the mechanical relationship described in the stem. The relevant principle concerns force, motion, pressure, energy, friction, stability, or machine advantage. Each distractor either reverses that relationship or describes an effect that the stated arrangement cannot produce. Review the stated facts and reject choices that use a different rule or unsupported detail.

61. C - The correct answer is C. Stiffer follows from the mechanical relationship described in the stem. The relevant principle concerns force, motion, pressure, energy, friction, stability, or machine advantage. Each distractor either reverses that relationship or describes an effect that the stated arrangement cannot produce. Review the stated facts and reject choices that use a different rule or unsupported detail.

62. D - The correct answer is D. Opposite directions follows from the mechanical relationship described in the stem. The relevant principle concerns force, motion, pressure, energy, friction, stability, or machine advantage. Each distractor either reverses that relationship or describes an effect that the stated arrangement cannot produce. Review the stated facts and reject choices that use a different rule or unsupported detail.

63. B - The correct answer is B. It separates surfaces with a film follows from the mechanical relationship described in the stem. The relevant principle concerns force, motion, pressure, energy, friction, stability, or

machine advantage. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.

64. A - The correct answer is A. Keeps the weight line within the base longer follows from the mechanical relationship described in the stem. The relevant principle concerns force, motion, pressure, energy, friction, stability, or machine advantage. Review the stated facts and reject choices that use a different rule or unsupported detail.

65. C - The correct answer is C. Outward along its sides follows from the mechanical relationship described in the stem. The relevant principle concerns force, motion, pressure, energy, friction, stability, or machine advantage. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.

66. B - The correct answer is B. Increases follows from the mechanical relationship described in the stem. The relevant principle concerns force, motion, pressure, energy, friction, stability, or machine advantage. Each distractor either reverses that relationship or describes an effect that the stated arrangement cannot produce. Review the stated facts and reject choices that use a different rule or unsupported detail.

67. D - The correct answer is D. A screw follows from the mechanical relationship described in the stem. The relevant principle concerns force, motion, pressure, energy, friction, stability, or machine advantage. Each distractor either reverses that relationship or describes an effect that the stated arrangement cannot produce. Review the stated facts and reject choices that use a different rule or unsupported detail.

68. A - The correct answer is A. Pressure doubles follows from the mechanical relationship described in the stem. The relevant principle concerns force, motion, pressure, energy, friction, stability, or machine advantage. Each distractor either reverses that relationship or describes an effect that the stated arrangement cannot produce. Review the stated facts and reject choices that use a different rule or unsupported detail.

69. D - The correct answer is D. It offsets much of the car load follows from the mechanical relationship described in the stem. The relevant principle concerns force, motion, pressure, energy, friction, stability, or machine advantage. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.

70. A - The correct answer is A. Elastic potential energy follows from the mechanical relationship described in the stem. The relevant principle concerns force, motion, pressure, energy, friction, stability, or machine advantage. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.

71. C - The correct answer is C. Decreases follows from the mechanical relationship described in the stem. The relevant principle concerns force, motion, pressure, energy, friction, stability, or machine advantage. Each distractor either reverses that relationship or describes an effect that the stated arrangement cannot produce. Review the stated facts and reject choices that use a different rule or unsupported detail.

72. B - The correct answer is B. The load is stable follows from the mechanical relationship described in the stem. The relevant principle concerns force, motion, pressure, energy, friction, stability, or machine advantage. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.

73. B - The correct answer is B. They repel follows from the mechanical relationship described in the stem. The relevant principle concerns force, motion, pressure, energy, friction, stability, or machine advantage. Each distractor either reverses that relationship or describes an effect that the stated arrangement cannot produce. Review the stated facts and reject choices that use a different rule or unsupported detail.

- 74. C** - The correct answer is C. Current becomes excessive follows from the mechanical relationship described in the stem. The relevant principle concerns force, motion, pressure, energy, friction, stability, or machine advantage. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.
- 75. A** - The correct answer is A. It resists shape change follows from the mechanical relationship described in the stem. The relevant principle concerns force, motion, pressure, energy, friction, stability, or machine advantage. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.
- 76. D** - The correct answer is D. A torque wrench is designed for the task or safety condition described. Selecting the proper tool improves control, protects the work, and reduces injury risk. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.
- 77. A** - The correct answer is A. An outside micrometer is designed for the task or safety condition described. Selecting the proper tool improves control, protects the work, and reduces injury risk. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.
- 78. C** - The correct answer is C. A pipe wrench is designed for the task or safety condition described. Selecting the proper tool improves control, protects the work, and reduces injury risk. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.
- 79. D** - The correct answer is D. A Phillips screwdriver is designed for the task or safety condition described. Selecting the proper tool improves control, protects the work, and reduces injury risk. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.
- 80. B** - The correct answer is B. A spirit level is designed for the task or safety condition described. Selecting the proper tool improves control, protects the work, and reduces injury risk. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.
- 81. B** - The correct answer is B. Disconnect its power source is designed for the task or safety condition described. Selecting the proper tool improves control, protects the work, and reduces injury risk. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.
- 82. C** - The correct answer is C. A center punch is designed for the task or safety condition described. Selecting the proper tool improves control, protects the work, and reduces injury risk. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.
- 83. D** - The correct answer is D. Remove it from service until dressed or replaced is designed for the task or safety condition described. Selecting the proper tool improves control, protects the work, and reduces injury risk. Review the stated facts and reject choices that use a different rule or unsupported detail.
- 84. A** - The correct answer is A. A die is designed for the task or safety condition described. Selecting the proper tool improves control, protects the work, and reduces injury risk. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result. Units and wording matter.
- 85. D** - The correct answer is D. A tap is designed for the task or safety condition described. Selecting the proper tool improves control, protects the work, and reduces injury risk. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result. Units and wording matter.
- 86. A** - The correct answer is A. Removes insulation without nicking the conductor is designed for the task or safety condition described. Selecting the proper tool improves control, protects the work, and reduces injury risk.

Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.

87. C - The correct answer is C. A box-end wrench is designed for the task or safety condition described. Selecting the proper tool improves control, protects the work, and reduces injury risk. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.

88. B - The correct answer is B. To reduce rounding and slipping is designed for the task or safety condition described. Selecting the proper tool improves control, protects the work, and reduces injury risk. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.

89. D - The correct answer is D. A file is designed for the task or safety condition described. Selecting the proper tool improves control, protects the work, and reduces injury risk. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result. Units and wording matter.

90. A - The correct answer is A. A small gap or clearance is designed for the task or safety condition described. Selecting the proper tool improves control, protects the work, and reduces injury risk. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.

91. C - The correct answer is C. A ball-peen hammer is designed for the task or safety condition described. Selecting the proper tool improves control, protects the work, and reduces injury risk. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.

92. C - The correct answer is C. A chalk line is designed for the task or safety condition described. Selecting the proper tool improves control, protects the work, and reduces injury risk. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.

93. B - The correct answer is B. The plug, insulation, and grounding condition is designed for the task or safety condition described. Selecting the proper tool improves control, protects the work, and reduces injury risk. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.

94. D - The correct answer is D. A gear puller is designed for the task or safety condition described. Selecting the proper tool improves control, protects the work, and reduces injury risk. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.

95. B - The correct answer is B. To protect eyes from flying particles is designed for the task or safety condition described. Selecting the proper tool improves control, protects the work, and reduces injury risk. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.

96. A - The correct answer is A. A try square is designed for the task or safety condition described. Selecting the proper tool improves control, protects the work, and reduces injury risk. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.

97. C - The correct answer is C. To hold work securely is designed for the task or safety condition described. Selecting the proper tool improves control, protects the work, and reduces injury risk. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.

98. B - The correct answer is B. A hex key is designed for the task or safety condition described. Selecting the proper tool improves control, protects the work, and reduces injury risk. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.

99. A - The correct answer is A. To prevent wheel failure from overspeed is designed for the task or safety condition described. Selecting the proper tool improves control, protects the work, and reduces injury risk. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result.

100. D - The correct answer is D. A voltmeter is designed for the task or safety condition described. Selecting the proper tool improves control, protects the work, and reduces injury risk. Review the stated facts and reject choices that use a different rule or unsupported detail. Careful comparison confirms the result. Units and wording matter.