

PRACTICE EXAM 20: ELEVATOR INDUSTRY APTITUDE TEST SIMULATION (100 QUESTIONS)

This practice exam contains 100 multiple-choice questions covering basic arithmetic, reading comprehension, mechanical comprehension, and general tool knowledge. Select the best answer for each question. A score of 70% or higher meets the official EIAT minimum passing grade; this independent practice simulation is not an official NEIEP examination.

1. During inventory, a parts bin held 48 bolts before 19 were issued. How many bolts are still in the bin?

- A. 29
- B. 27
- C. 31
- D. 67

2. While marking material, a 64-inch strip is marked at seven-eighths of its length. At how many inches is the mark?

- A. 48
- B. 54
- C. 56
- D. 72

3. For a field calculation, a 15-foot rail is divided into five sections of equal length. What is each section's length in feet?

- A. 2
- B. 3
- C. 4

D. 5

4. During quality control, a shipment contains 240 brackets, and 35% require inspection. How many brackets require inspection?

A. 72

B. 96

C. 105

D. 84

5. Before ordering decking, a work platform measures 12 feet by 7 feet. How many square feet does its surface cover?

A. 38

B. 76

C. 84

D. 168

6. While converting a measurement, a cable segment measures 4.5 feet. What is that length in inches?

A. 54

B. 48

C. 50

D. 60

7. During a timed travel check, a car moves 180 feet in 45 seconds at a constant average rate. What is the rate in feet per second?

A. 3

B. 4

C. 5

D. 6

8. When combining two readings, a measurement of 3.75 inches is increased by 8.6 inches. What is the combined measurement?

A. 11.35

B. 12.25

C. 12.45

D. 12.35

9. While totaling component weight, seven identical counterweight pieces weigh 18 pounds apiece. What is their combined weight?

A. 108

B. 116

C. 126

D. 136

10. During equal layout, a 144-inch length is divided into 12 equal sections. How long is each section?

A. 10

B. 12

C. 11

D. 14

11. When reviewing a supplier invoice, a supplier reduces the price of a \$320 tool by 15%. How many dollars are taken off the price?

A. 32

B. 45

C. 272

D. 48

12. Before installing a frame, a rectangular frame is 9 feet long and 5 feet wide. What is the distance around the frame?

A. 28

B. 14

C. 45

D. 56

13. During checklist review, an installer completes three-fifths of a 150-item checklist. How many items are complete?

A. 60

B. 75

C. 90

D. 120

14. When calculating a dimensional product, a rectangular component is 2.4 inches by 3.5 inches. What numerical product results from multiplying the dimensions?

A. 7.4

B. 8.4

C. 8.0

D. 9.4

15. During a reservoir test, a 96-gallon reservoir releases 8 gallons each minute. How many minutes are required to drain it?

A. 8

B. 10

- C. 14
- D. 12

16. While analyzing four measurements, four readings are 14, 18, 22, and 26. What is their arithmetic mean?

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

17. After trimming stock, a 10-foot board is shortened by 18 inches. What is its remaining length in inches?

- A. 102
- B. 98
- C. 100
- D. 112

18. During a fraction exercise, what value results when one-third is added to five-sixths?

- A. 1.1666666667
- B. 0.8333333333
- C. 1.0
- D. 1.3333333333

19. When totaling straight-time pay, an apprentice works 7.5 hours at \$24 per hour. What gross amount is earned?

- A. 168
- B. 176

- C. 180
- D. 192

20. Before fabricating a square panel, a square access opening measures 11 inches on each side. What is its area in square inches?

- A. 22
- B. 121
- C. 44
- D. 111

21. During a stock adjustment, a stock count of 2,500 is reduced by 12%. What is the new count?

- A. 2000
- B. 2200
- C. 2250
- D. 2380

22. While observing a rotating wheel, a wheel completes 18 revolutions each minute. How many revolutions will it complete in 25 minutes?

- A. 360
- B. 425
- C. 450
- D. 475

23. During a factorization exercise, which number is the greatest common factor shared by 36 and 54?

- A. 6
- B. 9
- C. 12

D. 18

24. When checking a diagonal, a right triangle has perpendicular sides of 6 and 8 units. What is the length of its hypotenuse?

A. 10

B. 9

C. 12

D. 14

25. During a load test, a 40-pound test load is raised by 25%. What is the resulting load in pounds?

A. 45

B. 55

C. 50

D. 65

26. Before testing the hoist, Lena verified the barricades and checked that all landing doors were controlled against opening. She warned the crew about startup and waited until every worker responded before _____ energizing _____ the _____ equipment.

Based only on this passage, which action occurred immediately before Lena energized the hoist?

A. She obtained acknowledgment from every worker

B. She removed all landing barricades

C. She opened the landing doors

D. She inspected the completed cab

27. Before testing the hoist, Lena verified the barricades and checked that all landing doors were controlled against opening. She warned the crew about startup and waited until every worker responded before _____ energizing _____ the _____ equipment.

Based only on this passage, what was the purpose of Lena's announcement to the crew?

- A. To assign the next lunch break
- B. To warn workers before the hoist was energized
- C. To request replacement barricades
- D. To report that the cab was finished

28. Before testing the hoist, Lena verified the barricades and checked that all landing doors were controlled against opening. She warned the crew about startup and waited until every worker responded before _____ energizing _____ the _____ equipment.

Based only on this passage, which choice most accurately summarizes the passage?

- A. Lena repaired the hoist before testing it
- B. Lena allowed the crew to enter the shaft
- C. Lena started equipment without notifying anyone
- D. Lena completed a communication and access check before startup

29. Before testing the hoist, Lena verified the barricades and checked that all landing doors were controlled against opening. She warned the crew about startup and waited until every worker responded before _____ energizing _____ the _____ equipment.

Based only on this passage, what priority is most strongly suggested by Lena's actions?

- A. Preventing exposure before equipment movement
- B. Finishing cosmetic work before inspection
- C. Reducing the number of workers onsite
- D. Increasing hoist speed during the test

30. Before testing the hoist, Lena verified the barricades and checked that all landing doors were controlled against opening. She warned the crew about startup and waited until every worker responded before _____ energizing _____ the _____ equipment.

Based only on this passage, as used here, the word “secured” most nearly means:

- A. Measured for final dimensions
- B. Painted with a protective coating
- C. Fastened or controlled against opening
- D. Removed from its supporting frame

31. The log recorded a slight vibration on Monday and a noticeably stronger one on Wednesday. Speed and load were the same on both days. Because the symptom was worsening, the supervisor ordered an inspection instead of waiting for the next regular service.

Based only on this passage, what prompted the supervisor to arrange an earlier inspection?

- A. The operating load had been doubled
- B. The vibration increased under otherwise similar conditions
- C. The routine service was already completed
- D. The equipment had stopped permanently

32. The log recorded a slight vibration on Monday and a noticeably stronger one on Wednesday. Speed and load were the same on both days. Because the symptom was worsening, the supervisor ordered an inspection instead of waiting for the next regular service.

Based only on this passage, according to the log, which operating condition did not change?

- A. The strength of the vibration
- B. The date of the next service
- C. The supervisor's inspection decision
- D. The operating speed and load

33. The log recorded a slight vibration on Monday and a noticeably stronger one on Wednesday. Speed and load were the same on both days. Because the symptom was worsening, the supervisor ordered an inspection instead of waiting for the next regular service.

Based only on this passage, what central idea does the maintenance passage communicate?

- A. Routine service eliminated a vibration
- B. A worsening symptom prompted earlier maintenance attention
- C. Higher loads always create vibration
- D. The supervisor canceled all inspections

34. The log recorded a slight vibration on Monday and a noticeably stronger one on Wednesday. Speed and load were the same on both days. Because the symptom was worsening, the supervisor ordered an inspection instead of waiting for the next regular service.

Based only on this passage, in this context, “routine” most nearly means:

- A. Regularly scheduled
- B. Unexpected and urgent
- C. Technically impossible
- D. Informally documented

35. The log recorded a slight vibration on Monday and a noticeably stronger one on Wednesday. Speed and load were the same on both days. Because the symptom was worsening, the supervisor ordered an inspection instead of waiting for the next regular service.

Based only on this passage, which detail provides the strongest support for the supervisor's decision?

- A. The first entry was made Monday
- B. A maintenance log was available
- C. The vibration became stronger by Wednesday
- D. The machine had an operating speed

36. The delivery included crates marked CAB, CONTROLLER, and DOOR EQUIPMENT. The controller appeared first on the packing list. The crew nevertheless unloaded door equipment first because the active work location needed those parts immediately.

Based only on this passage, which labeled crate did the crew remove first?

- A. The cab crate
- B. The controller crate
- C. An unlabeled spare crate
- D. The door-equipment crate

37. The delivery included crates marked CAB, CONTROLLER, and DOOR EQUIPMENT. The controller appeared first on the packing list. The crew nevertheless unloaded door equipment first because the active work location needed those parts immediately.

Based only on this passage, why was the packing-list sequence not followed?

- A. The controller crate was missing
- B. The cab crate was damaged
- C. The current work area needed door equipment
- D. The packing list prohibited unloading

38. The delivery included crates marked CAB, CONTROLLER, and DOOR EQUIPMENT. The controller appeared first on the packing list. The crew nevertheless unloaded door equipment first because the active work location needed those parts immediately.

Based only on this passage, which crate was listed before the others?

- A. The controller crate
- B. The door-equipment crate
- C. The cab crate
- D. The spare-parts crate

39. The delivery included crates marked CAB, CONTROLLER, and DOOR EQUIPMENT. The controller appeared first on the packing list. The crew nevertheless unloaded door equipment first because the active work location needed those parts immediately.

Based only on this passage, which contrast is central to the shipment passage?

- A. New tools versus damaged tools
- B. Listed order versus practical unloading order
- C. Morning work versus evening work
- D. Manual lifting versus powered lifting

40. The delivery included crates marked CAB, CONTROLLER, and DOOR EQUIPMENT. The controller appeared first on the packing list. The crew nevertheless unloaded door equipment first because the active work location needed those parts immediately.

Based only on this passage, the phrase “current work area” identifies:

- A. A future storage warehouse
- B. The shipping company's office
- C. The controller manufacturer's plant
- D. The location where the crew was presently working

41. Malik was told to measure an opening twice and record both readings. The measurements differed by one-eighth inch. After inspecting the tape hook, he measured once more and reproduced his second result.

Based only on this passage, after noticing the discrepancy, what item did Malik examine?

- A. The door operator
- B. The electrical disconnect
- C. The shipping label
- D. The tape hook

42. Malik was told to measure an opening twice and record both readings. The measurements differed by one-eighth inch. After inspecting the tape hook, he measured once more and reproduced his second result.

Based only on this passage, which earlier value agreed with Malik's third measurement?

- A. His first reading
- B. His second reading
- C. The foreperson's estimate
- D. The blueprint title

43. Malik was told to measure an opening twice and record both readings. The measurements differed by one-eighth inch. After inspecting the tape hook, he measured once more and reproduced his second result.

Based only on this passage, what benefit came from taking two initial measurements?

- A. They revealed an inconsistency requiring investigation
- B. They eliminated the need to record values
- C. They proved the opening was perfectly square
- D. They replaced the need for any measuring tool

44. Malik was told to measure an opening twice and record both readings. The measurements differed by one-eighth inch. After inspecting the tape hook, he measured once more and reproduced his second result.

Based only on this passage, which action in the passage is the clearest verification step?

- A. Estimating the opening by sight
- B. Ignoring the one-eighth-inch difference
- C. Repeating the measurement after checking the tool
- D. Using only the first recorded value

45. Malik was told to measure an opening twice and record both readings. The measurements differed by one-eighth inch. After inspecting the tape hook, he measured once more and reproduced his second result.

Based only on this passage, which conclusion is best supported by the third reading?

- A. The second reading was reproducible
- B. The opening changed size during the check
- C. The tape had no hook attached
- D. The first reading was necessarily exact

46. Deliveries could use the east gate through 2:00 p.m. Concrete work would block that approach afterward, requiring ordinary deliveries to enter at the north gate. The restriction did not interrupt access for _____ emergency _____ vehicles.

Based only on this passage, at 3:00 p.m., which gate is designated for an ordinary delivery?

- A. The east gate
- B. Either gate without restriction
- C. The north gate
- D. No gate is available

47. Deliveries could use the east gate through 2:00 p.m. Concrete work would block that approach afterward, requiring ordinary deliveries to enter at the north gate. The restriction did not interrupt access for _____ emergency _____ vehicles.

Based only on this passage, what event makes the east approach unavailable after 2:00 p.m.?

- A. The gate is being permanently removed
- B. Concrete placement will block it
- C. Emergency vehicles occupy it all day
- D. The north gate closes at noon

48. Deliveries could use the east gate through 2:00 p.m. Concrete work would block that approach afterward, requiring ordinary deliveries to enter at the north gate. The restriction did not interrupt access for _____ emergency _____ vehicles.

Based only on this passage, which vehicles continue to have access at every stated time?

- A. All delivery drivers
- B. Only concrete suppliers
- C. Visitors without deliveries
- D. Emergency vehicles

49. Deliveries could use the east gate through 2:00 p.m. Concrete work would block that approach afterward, requiring ordinary deliveries to enter at the north gate. The restriction did not interrupt access for _____ emergency _____ vehicles.

Based only on this passage, what is the notice primarily intended to communicate?

- A. To explain a time-dependent gate change
- B. To prohibit every vehicle from entering
- C. To advertise a concrete supplier
- D. To revise employee work hours

50. Deliveries could use the east gate through 2:00 p.m. Concrete work would block that approach afterward, requiring ordinary deliveries to enter at the north gate. The restriction did not interrupt access for _____ emergency _____ vehicles.

Based only on this passage, within the notice, “retain” most nearly means:

- A. Temporarily surrender
- B. Measure precisely
- C. Continue to have
- D. Apply for later

51. In a mechanical-reasoning exercise, two meshing external gears turn. If the driving gear rotates clockwise, how does the driven gear rotate?

- A. Clockwise
- B. Counterclockwise

- C. It remains stationary
- D. It alternates directions

52. In a mechanical-reasoning exercise, a longer wrench is used on the same bolt with the same applied force. What changes?

- A. The applied torque increases
- B. The bolt mass increases
- C. The friction becomes zero
- D. The force changes direction

53. In a mechanical-reasoning exercise, on an ideal fixed pulley, what is the primary benefit?

- A. It halves the required force
- B. It doubles the load weight
- C. It stores mechanical energy
- D. It changes the direction of the applied force

54. In a mechanical-reasoning exercise, if the area of a hydraulic output piston is four times the input-piston area, the ideal output force is:

- A. One-fourth the input force
- B. Equal to the input force
- C. Four times the input force
- D. Sixteen times the input force

55. In a mechanical-reasoning exercise, a small gear drives a larger gear. Compared with the small gear, the larger gear generally turns:

- A. Faster with less torque
- B. At the same speed and torque

- C. More slowly with less torque
- D. More slowly with greater torque

56. In a mechanical-reasoning exercise, when a load's center of gravity moves beyond its support base, the load tends to:

- A. Become weightless
- B. Tip over
- C. Slide upward
- D. Reduce its mass

57. In a mechanical-reasoning exercise, which surface usually produces the greatest friction against the same material?

- A. A rough, dry surface
- B. A smooth, lubricated surface
- C. A polished, wet surface
- D. An air-cushioned surface

58. In a mechanical-reasoning exercise, a spring is compressed farther within its elastic range. Its restoring force generally:

- A. Decreases to zero
- B. Reverses permanently
- C. Increases
- D. Remains exactly constant

59. In a mechanical-reasoning exercise, for a balanced first-class lever, the clockwise and counterclockwise moments are:

- A. Both zero in every case

- B. Unrelated to distance
- C. Always directed clockwise
- D. Equal

60. In a mechanical-reasoning exercise, a wide base makes a tall object more stable because it:

- A. Raises the center of gravity
- B. Permits more tilt before tipping
- C. Eliminates the object's weight
- D. Prevents every horizontal force

61. In a mechanical-reasoning exercise, if identical lamps are connected in parallel, failure of one lamp usually causes the others to:

- A. All go dark
- B. Double their resistance instantly
- C. Reverse current direction
- D. Remain lit

62. In a mechanical-reasoning exercise, adding another identical lamp in series increases total circuit resistance and generally makes current:

- A. Increase
- B. Decrease
- C. Remain unchanged
- D. Reverse polarity

63. In a mechanical-reasoning exercise, why does lubrication reduce wear between moving metal parts?

- A. It separates surfaces with a low-friction film
- B. It increases surface roughness

- C. It removes all applied load
- D. It hardens every metal instantly

64. In a mechanical-reasoning exercise, a heavier object and a lighter object fall in a vacuum. Ignoring relativity, they:

- A. The heavier accelerates faster
- B. The lighter accelerates faster
- C. Accelerate at the same rate
- D. Neither accelerates

65. In a mechanical-reasoning exercise, pressure on a surface equals force divided by:

- A. Area
- B. Volume
- C. Time
- D. Distance

66. In a mechanical-reasoning exercise, a sharp blade cuts more easily than a dull blade under the same force because it applies force over:

- A. A larger mass
- B. A longer time only
- C. A smaller area
- D. A greater volume

67. In a mechanical-reasoning exercise, heating a typical metal rod while it is free to move causes it to:

- A. Contract
- B. Expand
- C. Lose all strength

D. Gain mass

68. In a mechanical-reasoning exercise, an idler gear placed between a driver and a driven gear mainly changes:

- A. The gear ratio magnitude
- B. The tooth size of every gear
- C. The material hardness
- D. Spacing and final rotation direction relationship

69. In a mechanical-reasoning exercise, a block slides at constant speed across a floor while being pulled horizontally. The pull force is:

- A. Greater than friction
- B. Less than friction
- C. Unrelated to friction
- D. Equal to the opposing friction force

70. In a mechanical-reasoning exercise, when a fluid flows through a narrower section of a pipe at steady incompressible flow, its speed generally:

- A. Increases
- B. Decreases to zero
- C. Remains necessarily identical
- D. Reverses direction

71. In a mechanical-reasoning exercise, which arrangement gives the greatest ideal mechanical advantage for lifting the same load?

- A. A single fixed pulley only
- B. A movable pulley supported by multiple rope segments

- C. A direct vertical hand lift
- D. A shorter unsupported rope

72. In a mechanical-reasoning exercise, a fan continues spinning briefly after power is removed primarily because of:

- A. Buoyancy
- B. Magnetic polarity reversal
- C. Inertia
- D. Thermal expansion

73. In a mechanical-reasoning exercise, a fuse is designed to open a circuit when:

- A. Voltage reaches exactly zero
- B. Resistance becomes infinite elsewhere
- C. Current exceeds its rated safe value
- D. A switch is manually closed

74. In a mechanical-reasoning exercise, if a counterweight nearly balances a car, the motor mainly needs to overcome imbalance, friction, and:

- A. Acceleration forces
- B. The entire combined mass as dead lift
- C. Gravity everywhere in the building
- D. Atmospheric pressure on the roof

75. In a mechanical-reasoning exercise, a load is moved closer to a lever's fulcrum while effort distance stays fixed. Required ideal effort:

- A. Increases
- B. Stays equal in all cases

- C. Changes direction only
- D. Decreases

76. During a tool-selection exercise, which tool is best for tightening a hex-head bolt to a specified torque?

- A. A pipe wrench
- B. A torque wrench
- C. A ball-peen hammer
- D. A cold chisel

77. During a tool-selection exercise, which tool measures an outside diameter most precisely?

- A. An outside micrometer
- B. A framing square
- C. A chalk line
- D. A pry bar

78. During a tool-selection exercise, what is the primary purpose of a center punch?

- A. To cut external pipe threads
- B. To make an indentation that guides a drill bit
- C. To measure an inside angle
- D. To pull a bent nail

79. During a tool-selection exercise, which screwdriver is intended for a cross-shaped screw recess?

- A. A slotted screwdriver
- B. A hex key
- C. A pin punch
- D. A Phillips screwdriver

80. During a tool-selection exercise, which tool is designed to grip and turn round pipe?

- A. A combination wrench
- B. A wood rasp
- C. A pipe wrench
- D. A feeler gauge

81. During a tool-selection exercise, a feeler gauge is commonly used to measure:

- A. Small gaps or clearances
- B. Wire insulation resistance
- C. Large room diagonals
- D. Liquid pressure

82. During a tool-selection exercise, which hammer is commonly used for striking punches and shaping metal?

- A. A rubber mallet
- B. A sledgehammer
- C. A ball-peen hammer
- D. A tack hammer

83. During a tool-selection exercise, what should be done before changing a blade on a portable power saw?

- A. Increase the depth setting
- B. Hold the trigger down
- C. Lubricate the electrical plug
- D. Disconnect or isolate its power source

84. During a tool-selection exercise, which tool checks whether a surface is horizontal?

- A. A plumb bob
- B. A spirit level
- C. A wire stripper
- D. A socket extension

85. During a tool-selection exercise, a plumb bob establishes:

- A. A horizontal reference
- B. A threaded hole diameter
- C. A true vertical reference
- D. A specified bolt torque

86. During a tool-selection exercise, which tool removes insulation from electrical conductors without intentionally cutting the conductor?

- A. Locking pliers
- B. Tin snips
- C. A masonry bit
- D. Wire strippers

87. During a tool-selection exercise, which file is generally suited to enlarging a round hole?

- A. A round file
- B. A flat file
- C. A mill square
- D. A hand saw

88. During a tool-selection exercise, what does a tap produce?

- A. External threads on a rod
- B. Internal threads in a hole
- C. A smooth countersink only
- D. A square keyway

89. During a tool-selection exercise, what does a die commonly produce?

- A. Internal threads in a hole
- B. A drilled pilot hole
- C. A polished bearing surface
- D. External threads on a rod

90. During a tool-selection exercise, which tool is best for checking a 90-degree angle between two surfaces?

- A. A machinist's square
- B. A pipe cutter
- C. A torque adapter
- D. A bearing puller

91. During a tool-selection exercise, why should a mushroomed chisel head be dressed or replaced?

- A. It makes the cutting edge softer
- B. It prevents all hammer rebound
- C. Fragments can break off when struck
- D. It increases measurement error

92. During a tool-selection exercise, which drill bit is intended primarily for concrete or masonry?

- A. A brad-point wood bit
- B. A carbide-tipped masonry bit
- C. A high-speed steel twist bit only
- D. A countersink cutter

93. During a tool-selection exercise, locking pliers differ from ordinary slip-joint pliers because they:

- A. Clamp and remain locked at an adjusted setting
- B. Measure electrical current
- C. Cut only hardened bolts
- D. Apply calibrated torque

94. During a tool-selection exercise, which wrench surrounds all six sides of a hex fastener head?

- A. An adjustable open-end wrench
- B. A six-point box-end wrench
- C. A chain wrench
- D. A strap wrench

95. During a tool-selection exercise, a hacksaw blade should generally be installed so its teeth cut on the:

- A. Return stroke only
- B. Sideways stroke
- C. Upward storage position
- D. Forward stroke

96. During a tool-selection exercise, which tool creates a shallow conical recess so a flat-head screw can sit flush?

- A. A reamer

- B. A tap wrench
- C. A countersink
- D. A gear puller

97. During a tool-selection exercise, what is a reamer primarily used to do?

- A. Start a hole in solid plate
- B. Cut external threads
- C. Finish a hole accurately to size
- D. Bend sheet metal

98. During a tool-selection exercise, which tool is designed to remove a gear or bearing from a shaft?

- A. A tubing flarer
- B. A hand seamer
- C. A scratch awl
- D. A puller

99. During a tool-selection exercise, before using a ladder, the user should first:

- A. Coat the rungs with oil
- B. Inspect it for damage and proper condition
- C. Remove all identification labels
- D. Place it on loose debris

100. During a tool-selection exercise, which instrument directly measures electrical voltage?

- A. A voltmeter
- B. A pressure gauge
- C. A tachometer
- D. A torque wrench

Practice Exam 20: Answer Key and Explanations

- 1. A** — Subtracting the 19 used bolts from the original 48 gives 29 bolts remaining. Working from the stated values avoids estimating from the answer choices. The other results reflect a common operation, place-value, or unit-conversion error, so checking each step and its units is the most reliable way to select the single correct option.
- 2. C** — Multiplying 64 by $\frac{7}{8}$ gives 8 times 7, or 56. Working from the stated values avoids estimating from the answer choices. The other results reflect a common operation, place-value, or unit-conversion error, so checking each step and its units is the most reliable way to select the single correct option.
- 3. B** — Dividing the total 15 feet by five equal pieces gives 3 feet per piece. Working from the stated values avoids estimating from the answer choices. The other results reflect a common operation, place-value, or unit-conversion error, so checking each step and its units is the most reliable way to select the single correct option.
- 4. D** — Converting 35 percent to 0.35 and multiplying by 240 gives 84. Working from the stated values avoids estimating from the answer choices. The other results reflect a common operation, place-value, or unit-conversion error, so checking each step and its units is the most reliable way to select the single correct option.
- 5. C** — Area equals length times width, so 12 multiplied by 7 equals 84 square feet. Working from the stated values avoids estimating from the answer choices. The other results reflect a common operation, place-value, or unit-conversion error, so checking each step and its units is the most reliable way to select the single correct option.
- 6. A** — Each foot contains 12 inches, so 4.5 multiplied by 12 equals 54 inches. Working from the stated values avoids estimating from the answer choices. The other results reflect a common operation, place-value, or unit-conversion error, so checking each step and its units is the most reliable way to select the single correct option.
- 7. B** — Average speed is distance divided by time: 180 divided by 45 equals 4 feet per second. Working from the stated values avoids estimating from the answer choices. The other results reflect a common operation, place-value, or unit-conversion error, so checking each step and its units is the most reliable way to select the single correct option.
- 8. D** — Aligning decimal places and adding gives 3.75 plus 8.60, which equals 12.35. Working from the stated values avoids estimating from the answer choices. The other results reflect a common operation, place-value, or unit-conversion error, so checking each step and its units is the most reliable way to select the single correct option.

9. C — Seven boxes at 18 pounds each weigh 7 multiplied by 18, or 126 pounds. Working from the stated values avoids estimating from the answer choices. The other results reflect a common operation, place-value, or unit-conversion error, so checking each step and its units is the most reliable way to select the single correct option.

10. B — Dividing 144 into 12 equal groups produces 12 in each group. Working from the stated values avoids estimating from the answer choices. The other results reflect a common operation, place-value, or unit-conversion error, so checking each step and its units is the most reliable way to select the single correct option.

11. D — The discount is 0.15 multiplied by 320, which equals 48 dollars. Working from the stated values avoids estimating from the answer choices. The other results reflect a common operation, place-value, or unit-conversion error, so checking each step and its units is the most reliable way to select the single correct option.

12. A — Perimeter is twice the sum of length and width: 2 times 14 equals 28 feet. Working from the stated values avoids estimating from the answer choices. The other results reflect a common operation, place-value, or unit-conversion error, so checking each step and its units is the most reliable way to select the single correct option.

13. C — Multiplying 150 by $\frac{3}{5}$ gives 30 times 3, or 90 finished tasks. Working from the stated values avoids estimating from the answer choices. The other results reflect a common operation, place-value, or unit-conversion error, so checking each step and its units is the most reliable way to select the single correct option.

14. B — Multiplying 24 by 35 and restoring two decimal places gives 8.4. Working from the stated values avoids estimating from the answer choices. The other results reflect a common operation, place-value, or unit-conversion error, so checking each step and its units is the most reliable way to select the single correct option.

15. D — Time equals total volume divided by drain rate: 96 divided by 8 equals 12 minutes. Working from the stated values avoids estimating from the answer choices. The other results reflect a common operation, place-value, or unit-conversion error, so checking each step and its units is the most reliable way to select the single correct option.

16. D — The four numbers total 80; dividing by four gives an average of 20. Working from the stated values avoids estimating from the answer choices. The other results reflect a common operation, place-value, or unit-conversion error, so checking each step and its units is the most reliable way to select the single correct option.

17. A — Ten feet equals 120 inches; subtracting 18 inches leaves 102 inches. Working from the stated values avoids estimating from the answer choices. The other results reflect a common operation, place-value, or unit-conversion error, so checking each step and its units is the most reliable way to select the single correct option.

18. A — Converting $\frac{1}{3}$ to $\frac{2}{6}$ gives $\frac{7}{6}$, which is approximately 1.1667. Working from the stated values avoids estimating from the answer choices. The other results reflect a common operation, place-value, or unit-conversion error, so checking each step and its units is the most reliable way to select the single correct option.

19. C — Multiplying 24 dollars per hour by 7.5 hours gives 180 dollars. Working from the stated values avoids estimating from the answer choices. The other results reflect a common operation, place-value, or unit-conversion error, so checking each step and its units is the most reliable way to select the single correct option.

20. B — A square's area is side squared, so 11 multiplied by 11 equals 121 square inches. Working from the stated values avoids estimating from the answer choices. The other results reflect a common operation, place-value, or unit-conversion error, so checking each step and its units is the most reliable way to select the single correct option.

21. B — A 12 percent decrease leaves 88 percent; 2,500 multiplied by 0.88 equals 2,200. Working from the stated values avoids estimating from the answer choices. The other results reflect a common operation, place-value, or unit-conversion error, so checking each step and its units is the most reliable way to select the single correct option.

22. C — Multiplying 18 revolutions per minute by 25 minutes gives 450 revolutions. Working from the stated values avoids estimating from the answer choices. The other results reflect a common operation, place-value, or unit-conversion error, so checking each step and its units is the most reliable way to select the single correct option.

23. D — The largest integer dividing both 36 and 54 evenly is 18. Working from the stated values avoids estimating from the answer choices. The other results reflect a common operation, place-value, or unit-conversion error, so checking each step and its units is the most reliable way to select the single correct option.

24. A — The Pythagorean theorem gives the square root of 36 plus 64, or 10. Working from the stated values avoids estimating from the answer choices. The other results reflect a common operation, place-value, or unit-conversion error, so checking each step and its units is the most reliable way to select the single correct option.

25. C — The increase is 10 pounds, so the new total is 50 pounds. Working from the stated values avoids estimating from the answer choices. The other results reflect a common operation, place-value, or unit-conversion error, so checking each step and its units is the most reliable way to select the single correct option.

26. A — The final action named before startup is obtaining acknowledgment from every worker. This answer follows the passage directly and does not add an assumption the writer never made. The distractors either reverse the stated relationship, exaggerate a limited claim, or focus on a detail that does not answer the question being asked.

27. B — Her call was part of the safety sequence preceding energization. This answer follows the passage directly and does not add an assumption the writer never made. The distractors either reverse the stated relationship, exaggerate a limited claim, or focus on a detail that does not answer the question being asked.

28. D — The passage emphasizes checks, secured access, and crew acknowledgment before startup. This answer follows the passage directly and does not add an assumption the writer never made. The distractors either reverse the stated relationship, exaggerate a limited claim, or focus on a detail that does not answer the question being asked.

29. A — Every listed action reduces the chance that someone is exposed when equipment moves. This answer follows the passage directly and does not add an assumption the writer never made. The distractors either reverse the stated relationship, exaggerate a limited claim, or focus on a detail that does not answer the question being asked.

30. C — In context, secured doors are controlled so they cannot open unexpectedly. This answer follows the passage directly and does not add an assumption the writer never made. The distractors either reverse the stated relationship, exaggerate a limited claim, or focus on a detail that does not answer the question being asked.

31. B — The changing vibration, despite stable speed and load, justified prompt inspection. This answer follows the passage directly and does not add an assumption the writer never made. The distractors either reverse the stated relationship, exaggerate a limited claim, or focus on a detail that does not answer the question being asked.

32. D — The passage explicitly says operating speed and load had not changed. This answer follows the passage directly and does not add an assumption the writer never made. The distractors either reverse the stated relationship, exaggerate a limited claim, or focus on a detail that does not answer the question being asked.

33. B — The central point is escalation from a faint to stronger symptom and a quicker response. This answer follows the passage directly and does not add an assumption the writer never made. The distractors either reverse the stated relationship, exaggerate a limited claim, or focus on a detail that does not answer the question being asked.

34. A — Routine service is maintenance planned at regular intervals rather than triggered by an unusual condition. This answer follows the passage directly and does not add an assumption the writer never made. The distractors either reverse the stated relationship, exaggerate a limited claim, or focus on a detail that does not answer the question being asked.

35. C — An increasing vibration is the specific evidence of a developing problem. This answer follows the passage directly and does not add an assumption the writer never made. The distractors either reverse the stated relationship, exaggerate a limited claim, or focus on a detail that does not answer the question being asked.

36. D — The passage directly states that door equipment was unloaded first. This answer follows the passage directly and does not add an assumption the writer never made. The distractors either reverse the stated relationship, exaggerate a limited claim, or focus on a detail that does not answer the question being asked.

37. C — Worksite need, not list position, determined the unloading order. This answer follows the passage directly and does not add an assumption the writer never made. The distractors either reverse the stated relationship, exaggerate a limited claim, or focus on a detail that does not answer the question being asked. Careful reading of the task and the units confirms the choice.

38. A — The first sentence about order identifies the controller crate as first on the list. This answer follows the passage directly and does not add an assumption the writer never made. The distractors either reverse the stated relationship, exaggerate a limited claim, or focus on a detail that does not answer the question being asked.

39. B — The passage contrasts written sequence with the sequence chosen for immediate need. This answer follows the passage directly and does not add an assumption the writer never made. The distractors either reverse the stated relationship, exaggerate a limited claim, or focus on a detail that does not answer the question being asked.

40. D — Current means present, so the phrase identifies the crew's active location. This answer follows the passage directly and does not add an assumption the writer never made. The distractors either reverse the stated relationship, exaggerate a limited claim, or focus on a detail that does not answer the question being asked.

41. D — The passage says he checked the tape hook before measuring again. This answer follows the passage directly and does not add an assumption the writer never made. The distractors either reverse the stated relationship, exaggerate a limited claim, or focus on a detail that does not answer the question being asked.

42. B — The repeated value agreed with the second of the original readings. This answer follows the passage directly and does not add an assumption the writer never made. The distractors either reverse the stated relationship, exaggerate a limited claim, or focus on a detail that does not answer the question being asked.

43. A — Different readings exposed a discrepancy that a single reading would not reveal. This answer follows the passage directly and does not add an assumption the writer never made. The distractors either reverse the stated relationship, exaggerate a limited claim, or focus on a detail that does not answer the question being asked.

44. C — Checking the tool and repeating the measurement tests whether a reading is reproducible. This answer follows the passage directly and does not add an assumption the writer never made. The distractors either reverse the stated relationship, exaggerate a limited claim, or focus on a detail that does not answer the question being asked.

45. A — Matching the second result shows reproducibility, though not by itself absolute accuracy. This answer follows the passage directly and does not add an assumption the writer never made. The distractors either reverse the stated relationship, exaggerate a limited claim, or focus on a detail that does not answer the question being asked.

46. C — After 2:00 p.m., the notice directs delivery drivers to the north gate. This answer follows the passage directly and does not add an assumption the writer never made. The distractors either reverse the stated relationship, exaggerate a limited claim, or focus on a detail that does not answer the question being asked.

47. B — The notice gives concrete placement as the reason for the temporary restriction. This answer follows the passage directly and does not add an assumption the writer never made. The distractors either reverse the stated relationship, exaggerate a limited claim, or focus on a detail that does not answer the question being asked.

48. D — The final sentence explicitly preserves continuous access for emergency vehicles. This answer follows the passage directly and does not add an assumption the writer never made. The distractors either reverse the stated relationship, exaggerate a limited claim, or focus on a detail that does not answer the question being asked.

49. A — The notice tells drivers how access changes after a stated time and why. This answer follows the passage directly and does not add an assumption the writer never made. The distractors either reverse the stated relationship, exaggerate a limited claim, or focus on a detail that does not answer the question being asked.

50. C — Emergency vehicles continue to have access; they do not lose it when the delivery route changes. This answer follows the passage directly and does not add an assumption the writer never made. The distractors either reverse the stated relationship, exaggerate a limited claim, or focus on a detail that does not answer the question being asked.

51. B — Meshing external gears reverse rotational direction at their contact point. The governing principle predicts this result under the conditions in the stem. The other choices confuse force with motion, reverse the direction of an interaction, or ignore how distance, load, friction, pressure, or mechanical advantage affects the system. Careful reading of the task and the units confirms the choice.

52. A — Torque equals force multiplied by perpendicular distance from the pivot, so a longer handle increases torque. The governing principle predicts this result under the conditions in the stem. The other choices confuse force with motion, reverse the direction of an interaction, or ignore how distance, load, friction, pressure, or mechanical advantage affects the system.

53. D — A single fixed pulley redirects the pull but provides no ideal force multiplication. The governing principle predicts this result under the conditions in the stem. The other choices confuse force with motion, reverse the direction of an interaction, or ignore how distance, load, friction, pressure, or mechanical advantage affects the system.

54. C — Equal pressure throughout the fluid makes force proportional to piston area. The governing principle predicts this result under the conditions in the stem. The other choices confuse force with motion, reverse the direction of an interaction, or ignore how distance, load, friction, pressure, or mechanical advantage affects the system. Careful reading of the task and the units confirms the choice.

55. D — A larger driven gear trades rotational speed for increased torque. The governing principle predicts this result under the conditions in the stem. The other choices confuse force with motion, reverse the direction of an interaction, or ignore how distance, load, friction, pressure, or mechanical advantage affects the system. Careful reading of the task and the units confirms the choice.

56. B — Once the gravity line falls outside the support base, gravity creates an overturning moment. The governing principle predicts this result under the conditions in the stem. The other choices confuse force with motion, reverse the direction of an interaction, or ignore how distance, load, friction, pressure, or mechanical advantage affects the system.

57. A — Rough dry contact usually resists sliding more than lubricated or separated surfaces. The governing principle predicts this result under the conditions in the stem. The other choices confuse force with motion, reverse the direction of an interaction, or ignore how distance, load, friction, pressure, or mechanical advantage affects the system.

58. C — Hooke's law states that spring force grows with displacement within the elastic range. The governing principle predicts this result under the conditions in the stem. The other choices confuse force with motion, reverse the direction of an interaction, or ignore how distance, load, friction, pressure, or mechanical advantage affects the system.

59. D — Rotational equilibrium requires equal opposing moments about the fulcrum. The governing principle predicts this result under the conditions in the stem. The other choices confuse force with motion, reverse the direction of an interaction, or ignore how distance, load, friction, pressure, or mechanical advantage affects the system. Careful reading of the task and the units confirms the choice.

60. B — A broader support polygon permits more tilt before the gravity line passes beyond the edge. The governing principle predicts this result under the conditions in the stem. The other choices confuse force with motion, reverse the direction of an interaction, or ignore how distance, load, friction, pressure, or mechanical advantage affects the system.

61. D — Each parallel branch has its own current path, so one open branch does not break the others. The governing principle predicts this result under the conditions in the stem. The other choices confuse force with motion, reverse the direction of an interaction, or ignore how distance, load, friction, pressure, or mechanical advantage affects the system.

62. B — Series resistances add; with fixed voltage, Ohm's law predicts lower current. The governing principle predicts this result under the conditions in the stem. The other choices confuse force with motion, reverse the direction of an interaction, or ignore how distance, load, friction, pressure, or mechanical advantage affects the system. Careful reading of the task and the units confirms the choice.

63. A — A lubricant film limits direct asperity contact, lowering friction and material loss. The governing principle predicts this result under the conditions in the stem. The other choices confuse force with motion, reverse the direction of an interaction, or ignore how distance, load, friction, pressure, or mechanical advantage affects the system.

64. C — Without air resistance, gravitational acceleration is independent of object mass. The governing principle predicts this result under the conditions in the stem. The other choices confuse force with motion, reverse the direction of an interaction, or ignore how distance, load, friction, pressure, or mechanical advantage affects the system. Careful reading of the task and the units confirms the choice.

65. A — Pressure distributes a normal force across the area carrying it. The governing principle predicts this result under the conditions in the stem. The other choices confuse force with motion, reverse the direction of an interaction, or ignore how distance, load, friction, pressure, or mechanical advantage affects the system. Careful reading of the task and the units confirms the choice.

66. C — Concentrating force on a smaller edge area produces greater pressure. The governing principle predicts this result under the conditions in the stem. The other choices confuse force with motion, reverse the direction of an interaction, or ignore how distance, load, friction, pressure, or mechanical advantage affects the system. Careful reading of the task and the units confirms the choice.

67. B — Thermal motion increases atomic spacing, producing expansion when movement is unrestrained. The governing principle predicts this result under the conditions in the stem. The other choices confuse force with motion, reverse the direction of an interaction, or ignore how distance, load, friction, pressure, or mechanical advantage affects the system. Careful reading of the task and the units confirms the choice.

68. D — An idler transmits motion and affects direction arrangement without changing the overall ratio magnitude. The governing principle predicts this result under the conditions in the stem. The other choices confuse force with motion, reverse the direction of an interaction, or ignore how distance, load, friction, pressure, or mechanical advantage affects the system.

69. D — Constant velocity means zero net horizontal force, so pull and friction balance. The governing principle predicts this result under the conditions in the stem. The other choices confuse force with motion, reverse the direction of an interaction, or ignore how distance, load, friction, pressure, or mechanical advantage affects the system.

70. A — Continuity requires the same volume flow rate, so velocity rises as cross-sectional area falls. The governing principle predicts this result under the conditions in the stem. The other choices confuse force with motion, reverse the direction of an interaction, or ignore how distance, load, friction, pressure, or mechanical advantage affects the system.

71. B — More supporting rope segments divide the load among tensions and reduce required ideal input force. The governing principle predicts this result under the conditions in the stem. The other choices confuse force with motion, reverse the direction of an interaction, or ignore how distance, load, friction, pressure, or mechanical advantage affects the system.

72. C — Rotational inertia resists an immediate change from motion to rest. The governing principle predicts this result under the conditions in the stem. The other choices confuse force with motion, reverse the direction of an interaction, or ignore how distance, load, friction, pressure, or mechanical advantage affects the system. Careful reading of the task and the units confirms the choice.

73. C — Excess current heats the fuse element until it melts and interrupts the circuit. The governing principle predicts this result under the conditions in the stem. The other choices confuse force with motion, reverse the direction of an interaction, or ignore how distance, load, friction, pressure, or mechanical advantage affects the system.

74. A — Balancing reduces the steady gravitational load, leaving imbalance, friction, and inertial demand during acceleration. The governing principle predicts this result under the conditions in the stem. The other choices confuse force with motion, reverse the direction of an interaction, or ignore how distance, load, friction, pressure, or mechanical advantage affects the system.

75. D — Reducing the load arm reduces its moment, so less effort balances it at the same effort arm. The governing principle predicts this result under the conditions in the stem. The other choices confuse force with motion, reverse the direction of an interaction, or ignore how distance, load, friction, pressure, or mechanical advantage affects the system.

76. B — A torque wrench indicates or limits the applied turning moment to a specified value. Selecting the tool by its intended function improves accuracy and reduces damage to the workpiece or fastener. The alternatives may look similar or be useful nearby, but their shapes, gripping surfaces, measuring features, or cutting actions are designed for different tasks.

77. A — An outside micrometer uses a calibrated screw to measure external dimensions precisely. Selecting the tool by its intended function improves accuracy and reduces damage to the workpiece or fastener. The alternatives may look similar or be useful nearby, but their shapes, gripping surfaces, measuring features, or cutting actions are designed for different tasks.

78. B — A center-punch mark keeps the drill point from wandering at startup. Selecting the tool by its intended function improves accuracy and reduces damage to the workpiece or fastener. The alternatives may look similar or be useful nearby, but their shapes, gripping surfaces, measuring features, or cutting actions are designed for different tasks.

79. D — A Phillips tip matches the intersecting slots of a cross-shaped recess. Selecting the tool by its intended function improves accuracy and reduces damage to the workpiece or fastener. The alternatives may look similar or be useful nearby, but their shapes, gripping surfaces, measuring features, or cutting actions are designed for different tasks.

80. C — A pipe wrench has serrated jaws arranged to bite into round pipe under turning load. Selecting the tool by its intended function improves accuracy and reduces damage to the workpiece or fastener. The alternatives may look similar or be useful nearby, but their shapes, gripping surfaces, measuring features, or cutting actions are designed for different tasks.

81. A — Thin leaves of known thickness are inserted into a gap to determine clearance. Selecting the tool by its intended function improves accuracy and reduces damage to the workpiece or fastener. The alternatives may look similar or be useful nearby, but their shapes, gripping surfaces, measuring features, or cutting actions are designed for different tasks.

82. C — The hardened face strikes punches, while the rounded peen can shape metal. Selecting the tool by its intended function improves accuracy and reduces damage to the workpiece or fastener. The alternatives may look similar or be useful nearby, but their shapes, gripping surfaces, measuring features, or cutting actions are designed for different tasks.

83. D — Power isolation prevents unintended startup while hands are near the blade and arbor. Selecting the tool by its intended function improves accuracy and reduces damage to the workpiece or fastener. The alternatives may look similar or be useful nearby, but their shapes, gripping surfaces, measuring features, or cutting actions are designed for different tasks.

84. B — The level vial centers its bubble when the tool is horizontal. Selecting the tool by its intended function improves accuracy and reduces damage to the workpiece or fastener. The alternatives may look similar or be useful nearby, but their shapes, gripping surfaces, measuring features, or cutting actions are designed for different tasks.

85. C — A suspended weight aligns with gravity and defines a vertical line. Selecting the tool by its intended function improves accuracy and reduces damage to the workpiece or fastener. The alternatives may look similar or be useful nearby, but their shapes, gripping surfaces, measuring features, or cutting actions are designed for different tasks.

86. D — Sized stripper openings cut insulation while preserving the metal conductor. Selecting the tool by its intended function improves accuracy and reduces damage to the workpiece or fastener. The alternatives may look similar or be useful nearby, but their shapes, gripping surfaces, measuring features, or cutting actions are designed for different tasks.

87. A — A round file's curved cutting surface fits and enlarges circular openings. Selecting the tool by its intended function improves accuracy and reduces damage to the workpiece or fastener. The alternatives may look similar or be useful nearby, but their shapes, gripping surfaces, measuring features, or cutting actions are designed for different tasks.

88. B — A tap cuts helical internal threads so a matching fastener can engage the hole. Selecting the tool by its intended function improves accuracy and reduces damage to the workpiece or fastener. The alternatives may look similar or be useful nearby, but their shapes, gripping surfaces, measuring features, or cutting actions are designed for different tasks.

89. D — A threading die cuts external helical threads on round stock. Selecting the tool by its intended function improves accuracy and reduces damage to the workpiece or fastener. The alternatives may look similar or be useful nearby, but their shapes, gripping surfaces, measuring features, or cutting actions are designed for different tasks.

90. A — The square's blade and stock provide a fixed right-angle reference. Selecting the tool by its intended function improves accuracy and reduces damage to the workpiece or fastener. The alternatives may look similar or be useful nearby, but their shapes, gripping surfaces, measuring features, or cutting actions are designed for different tasks.

91. C — A flared, cracked head can shed high-speed metal fragments under hammer impact. Selecting the tool by its intended function improves accuracy and reduces damage to the workpiece or fastener. The alternatives may look similar or be useful nearby, but their shapes, gripping surfaces, measuring features, or cutting actions are designed for different tasks.

92. B — The hard carbide tip withstands abrasive masonry and works with impact action when appropriate. Selecting the tool by its intended function improves accuracy and reduces damage to the workpiece or fastener. The alternatives may look similar or be useful nearby, but their shapes, gripping surfaces, measuring features, or cutting actions are designed for different tasks.

93. A — Their over-center mechanism holds a preset grip until the release lever is operated. Selecting the tool by its intended function improves accuracy and reduces damage to the workpiece or fastener. The alternatives may look similar or be useful nearby, but their shapes, gripping surfaces, measuring features, or cutting actions are designed for different tasks.

94. B — A six-point box end contacts all flats and reduces the chance of rounding. Selecting the tool by its intended function improves accuracy and reduces damage to the workpiece or fastener. The alternatives may look similar or be useful nearby, but their shapes, gripping surfaces, measuring features, or cutting actions are designed for different tasks.

95. D — Standard hacksaw frames tension the blade for cutting as the user pushes forward. Selecting the tool by its intended function improves accuracy and reduces damage to the workpiece or fastener. The alternatives may look similar or be useful nearby, but their shapes, gripping surfaces, measuring features, or cutting actions are designed for different tasks.

96. C — A countersink cuts a conical seat matching the underside of a flat-head screw. Selecting the tool by its intended function improves accuracy and reduces damage to the workpiece or fastener. The alternatives may look similar or be useful nearby, but their shapes, gripping surfaces, measuring features, or cutting actions are designed for different tasks.

97. C — A reamer removes a small amount of material to improve hole size and finish. Selecting the tool by its intended function improves accuracy and reduces damage to the workpiece or fastener. The alternatives may look similar or be useful nearby, but their shapes, gripping surfaces, measuring features, or cutting actions are designed for different tasks.

98. D — Puller jaws grip the component while a forcing screw pushes against the shaft. Selecting the tool by its intended function improves accuracy and reduces damage to the workpiece or fastener. The alternatives may look similar or be useful nearby, but their shapes, gripping surfaces, measuring features, or cutting actions are designed for different tasks.

99. B — Inspection identifies damaged rails, rungs, feet, locks, or contamination before climbing. Selecting the tool by its intended function improves accuracy and reduces damage to the workpiece or fastener. The alternatives may look similar or be useful nearby, but their shapes, gripping surfaces, measuring features, or cutting actions are designed for different tasks.

100. A — A voltmeter is connected across two points to measure electrical potential difference. Selecting the tool by its intended function improves accuracy and reduces damage to the workpiece or fastener. The alternatives may look similar or be useful nearby, but their shapes, gripping surfaces, measuring features, or cutting actions are designed for different tasks.