

PRACTICE EXAM 13: LEAN SIX SIGMA GREEN BELT

(100 QUESTIONS)

This 100-question practice exam follows the current ASQ CSSGB Body of Knowledge. It mirrors the 100 scored questions in the computer-delivered exam; allow approximately 258 minutes for a realistic pace. Select the single best answer for each item.

1. Which Lean Six Sigma concept is most directly used for linking improvement work to customer value and business results?

- A. Six Sigma business value
- B. a project kickoff meeting
- C. a final financial report
- D. an unrelated DMAIC deliverable

2. Which Lean Six Sigma concept is most directly used for owning the process and sustaining its performance?

- A. a project kickoff meeting
- B. process owner
- C. a final financial report
- D. an unrelated DMAIC deliverable

3. Which Lean Six Sigma concept is most directly used for removing barriers and aligning projects with strategy?

- A. a project kickoff meeting
- B. a final financial report
- C. champion in context

D. an unrelated DMAIC deliverable

4. Which Lean Six Sigma concept is most directly used for authorizing the work and defining the business case?

- A. a project kickoff meeting
- B. a final financial report
- C. an unrelated DMAIC deliverable
- D. project charter

5. Which Lean Six Sigma concept is most directly used for identifying affected people and their influence?

- A. a project kickoff meeting
- B. a final financial report
- C. stakeholder analysis
- D. an unrelated DMAIC deliverable

6. Which Lean Six Sigma concept is most directly used for clarifying responsibilities and decision authority?

- A. a project kickoff meeting
- B. a final financial report
- C. an unrelated DMAIC deliverable
- D. team roles

7. Which Lean Six Sigma concept is most directly used for helping a group progress from forming to performing?

- A. a project kickoff meeting
- B. team development

- C. a final financial report
- D. an unrelated DMAIC deliverable

8. Which Lean Six Sigma concept is most directly used for addressing differences constructively to protect project progress?

- A. conflict resolution
- B. a project kickoff meeting
- C. a final financial report
- D. an unrelated DMAIC deliverable

9. Which Lean Six Sigma concept is most directly used for guiding a team toward productive participation and decisions?

- A. a project kickoff meeting
- B. a final financial report
- C. an unrelated DMAIC deliverable
- D. facilitation in context

10. Which Lean Six Sigma concept is most directly used for matching project information to stakeholder needs?

- A. a project kickoff meeting
- B. a final financial report
- C. communication plan
- D. an unrelated DMAIC deliverable

11. Which Lean Six Sigma concept is most directly used for quantifying savings, avoidance, or revenue impact?

- A. a project kickoff meeting

- B. financial benefits
- C. a final financial report
- D. an unrelated DMAIC deliverable

12. Which Lean Six Sigma concept is most directly used for capturing costs caused by defects and failures?

- A. cost of poor quality
- B. a project kickoff meeting
- C. a final financial report
- D. an unrelated DMAIC deliverable

13. Which Lean Six Sigma concept is most directly used for ranking candidate projects against agreed criteria?

- A. a project kickoff meeting
- B. project selection matrix
- C. a final financial report
- D. an unrelated DMAIC deliverable

14. Which Lean Six Sigma concept is most directly used for protecting data integrity and honest reporting?

- A. a project kickoff meeting
- B. a final financial report
- C. an unrelated DMAIC deliverable
- D. ethical conduct

15. Which Lean Six Sigma concept is most directly used for removing waste while reducing variation?

- A. a project kickoff meeting

- B. a final financial report
- C. Lean integration
- D. an unrelated DMAIC deliverable

16. Which Lean Six Sigma concept is most directly used for turning customer needs into actionable requirements?

- A. voice of the customer
- B. a project kickoff meeting
- C. a final financial report
- D. an unrelated DMAIC deliverable

17. Which Lean Six Sigma concept is most directly used for decomposing broad needs into measurable drivers?

- A. a project kickoff meeting
- B. a final financial report
- C. critical-to-quality tree
- D. an unrelated DMAIC deliverable

18. Which Lean Six Sigma concept is most directly used for separating basic, performance, and delight attributes?

- A. Kano analysis
- B. a project kickoff meeting
- C. a final financial report
- D. an unrelated DMAIC deliverable

19. Which Lean Six Sigma concept is most directly used for framing suppliers, inputs, process, outputs, and customers?

- A. a project kickoff meeting
- B. SIPOC in context
- C. a final financial report
- D. an unrelated DMAIC deliverable

20. Which Lean Six Sigma concept is most directly used for showing major steps and boundaries before detailed analysis?

- A. a project kickoff meeting
- B. a final financial report
- C. an unrelated DMAIC deliverable
- D. high-level process map

21. Which Lean Six Sigma concept is most directly used for stating what the project includes and excludes?

- A. a project kickoff meeting
- B. a final financial report
- C. project scope
- D. an unrelated DMAIC deliverable

22. Which Lean Six Sigma concept is most directly used for describing the measurable performance gap without prescribing a solution?

- A. problem statement
- B. a project kickoff meeting
- C. a final financial report
- D. an unrelated DMAIC deliverable

23. Which Lean Six Sigma concept is most directly used for setting a specific, measurable target and deadline?

- A. a project kickoff meeting
- B. a final financial report
- C. an unrelated DMAIC deliverable
- D. goal statement

24. Which Lean Six Sigma concept is most directly used for documenting current performance before changes?

- A. a project kickoff meeting
- B. baseline in context
- C. a final financial report
- D. an unrelated DMAIC deliverable

25. Which Lean Six Sigma concept is most directly used for anticipating project threats and response actions?

- A. risk assessment
- B. a project kickoff meeting
- C. a final financial report
- D. an unrelated DMAIC deliverable

26. Which Lean Six Sigma concept is most directly used for breaking project deliverables into manageable work?

- A. a project kickoff meeting
- B. a final financial report
- C. an unrelated DMAIC deliverable
- D. work breakdown structure

27. Which Lean Six Sigma concept is most directly used for tracking tasks, owners, dates, and progress?

- A. a project kickoff meeting
- B. a final financial report
- C. Gantt chart
- D. an unrelated DMAIC deliverable

28. Which Lean Six Sigma concept is most directly used for showing activity dependencies and critical paths?

- A. a project kickoff meeting
- B. network diagram
- C. a final financial report
- D. an unrelated DMAIC deliverable

29. Which Lean Six Sigma concept is most directly used for confirming phase deliverables before proceeding?

- A. a project kickoff meeting
- B. tollgate review
- C. a final financial report
- D. an unrelated DMAIC deliverable

30. Which Lean Six Sigma concept is most directly used for clarifying responsible, accountable, consulted, and informed roles?

- A. a project kickoff meeting
- B. a final financial report
- C. RACI matrix
- D. an unrelated DMAIC deliverable

31. Which Lean Six Sigma concept is most directly used for making a measurement or classification repeatable?

- A. a project kickoff meeting
- B. a final financial report
- C. an unrelated DMAIC deliverable
- D. operational definition

32. Which Lean Six Sigma concept is most directly used for specifying data, sources, method, ownership, and frequency?

- A. data collection plan
- B. a project kickoff meeting
- C. a final financial report
- D. an unrelated DMAIC deliverable

33. Which Lean Six Sigma concept is most directly used for selecting observations that represent the process?

- A. a project kickoff meeting
- B. a final financial report
- C. sampling plan
- D. an unrelated DMAIC deliverable

34. Which Lean Six Sigma concept is most directly used for giving units an equal chance of selection?

- A. a project kickoff meeting
- B. a final financial report
- C. an unrelated DMAIC deliverable
- D. random sampling

35. Which Lean Six Sigma concept is most directly used for separating data by meaningful categories to reveal patterns?

- A. stratification in context
- B. a project kickoff meeting
- C. a final financial report
- D. an unrelated DMAIC deliverable

36. Which Lean Six Sigma concept is most directly used for closeness of readings to the true value?

- A. a project kickoff meeting
- B. measurement accuracy
- C. a final financial report
- D. an unrelated DMAIC deliverable

37. Which Lean Six Sigma concept is most directly used for consistency among repeated readings?

- A. a project kickoff meeting
- B. a final financial report
- C. an unrelated DMAIC deliverable
- D. measurement precision

38. Which Lean Six Sigma concept is most directly used for systematic difference from a reference value?

- A. measurement bias
- B. a project kickoff meeting
- C. a final financial report
- D. an unrelated DMAIC deliverable

39. Which Lean Six Sigma concept is most directly used for change in measurement bias across the operating range?

- A. a project kickoff meeting

- B. a final financial report
- C. linearity in context
- D. an unrelated DMAIC deliverable

40. Which Lean Six Sigma concept is most directly used for consistency of a measurement system over time?

- A. a project kickoff meeting
- B. stability in context
- C. a final financial report
- D. an unrelated DMAIC deliverable

41. Which Lean Six Sigma concept is most directly used for variation from one appraiser using one gauge repeatedly?

- A. a project kickoff meeting
- B. a final financial report
- C. repeatability in context
- D. an unrelated DMAIC deliverable

42. A gauge reads 10.4 mm when a certified 10.0 mm standard is measured. What is the measurement bias?

- A. 0.2 mm
- B. 0.6 mm
- C. 1.0 mm
- D. 0.4 mm

43. Which Lean Six Sigma concept is most directly used for estimating combined repeatability and reproducibility variation?

- A. gauge R&R
- B. a project kickoff meeting
- C. a final financial report
- D. an unrelated DMAIC deliverable

44. Which Lean Six Sigma concept is most directly used for checking consistency of categorical ratings?

- A. a project kickoff meeting
- B. attribute agreement analysis
- C. a final financial report
- D. an unrelated DMAIC deliverable

45. Which Lean Six Sigma concept is most directly used for comparing process spread and centering to specifications?

- A. process capability
- B. a project kickoff meeting
- C. a final financial report
- D. an unrelated DMAIC deliverable

46. A process has USL 112, LSL 88, and estimated standard deviation 2. What is C_p ?

- A. 1.00
- B. 1.33
- C. 1.67
- D. 2

47. Which Lean Six Sigma concept is most directly used for measuring actual capability including process centering?

- A. a project kickoff meeting

- B. Cpk in context
- C. a final financial report
- D. an unrelated DMAIC deliverable

48. Which Lean Six Sigma concept is most directly used for assessing whether data reasonably follow a normal distribution?

- A. a project kickoff meeting
- B. a final financial report
- C. normal probability plot
- D. an unrelated DMAIC deliverable

49. Which Lean Six Sigma concept is most directly used for displaying center, spread, and possible outliers?

- A. a project kickoff meeting
- B. a final financial report
- C. box plot
- D. an unrelated DMAIC deliverable

50. Which Lean Six Sigma concept is most directly used for expressing a plausible range for a population parameter?

- A. a project kickoff meeting
- B. a final financial report
- C. an unrelated DMAIC deliverable
- D. confidence interval

51. Which Lean Six Sigma concept is most directly used for prioritizing process inputs by their impact on outputs?

- A. a project kickoff meeting
- B. cause-and-effect matrix
- C. a final financial report
- D. an unrelated DMAIC deliverable

52. An FMEA has severity 7, occurrence 4, and detection 3. What is the RPN?

- A. 84
- B. 64
- C. 72
- D. 96

53. Which Lean Six Sigma concept is most directly used for probing progressively toward an underlying cause?

- A. a project kickoff meeting
- B. five whys
- C. a final financial report
- D. an unrelated DMAIC deliverable

54. Which Lean Six Sigma concept is most directly used for organizing possible causes under major categories?

- A. a project kickoff meeting
- B. a final financial report
- C. fishbone diagram
- D. an unrelated DMAIC deliverable

55. Which Lean Six Sigma concept is most directly used for anticipating failure modes, effects, and controls?

- A. FMEA in context
- B. a project kickoff meeting
- C. a final financial report
- D. an unrelated DMAIC deliverable

56. Which Lean Six Sigma concept is most directly used for multiplying severity, occurrence, and detection ratings?

- A. a project kickoff meeting
- B. a final financial report
- C. an unrelated DMAIC deliverable
- D. risk priority number

57. Which Lean Six Sigma concept is most directly used for displaying performance over time without control limits?

- A. a project kickoff meeting
- B. a final financial report
- C. run chart
- D. an unrelated DMAIC deliverable

58. Which Lean Six Sigma concept is most directly used for distinguishing common and special cause variation?

- A. control chart
- B. a project kickoff meeting
- C. a final financial report
- D. an unrelated DMAIC deliverable

59. Which Lean Six Sigma concept is most directly used for describing routine variation built into the process?

- A. a project kickoff meeting
- B. common cause variation
- C. a final financial report
- D. an unrelated DMAIC deliverable

60. Which Lean Six Sigma concept is most directly used for identifying an unusual assignable source of variation?

- A. a project kickoff meeting
- B. a final financial report
- C. an unrelated DMAIC deliverable
- D. special cause variation

61. Which Lean Six Sigma concept is most directly used for examining a possible relationship between two variables?

- A. a project kickoff meeting
- B. a final financial report
- C. an unrelated DMAIC deliverable
- D. scatter plot

62. Which Lean Six Sigma concept is most directly used for quantifying association without proving causation?

- A. a project kickoff meeting
- B. correlation in context
- C. a final financial report
- D. an unrelated DMAIC deliverable

63. Which Lean Six Sigma concept is most directly used for estimating an outcome from one predictor?

- A. a project kickoff meeting
- B. a final financial report
- C. simple regression
- D. an unrelated DMAIC deliverable

64. Which Lean Six Sigma concept is most directly used for estimating an outcome from several predictors?

- A. multiple regression
- B. a project kickoff meeting
- C. a final financial report
- D. an unrelated DMAIC deliverable

65. Which Lean Six Sigma concept is most directly used for the default statement tested statistically?

- A. a project kickoff meeting
- B. null hypothesis
- C. a final financial report
- D. an unrelated DMAIC deliverable

66. Which Lean Six Sigma concept is most directly used for the competing statement supported when evidence is sufficient?

- A. alternative hypothesis
- B. a project kickoff meeting
- C. a final financial report
- D. an unrelated DMAIC deliverable

67. Which Lean Six Sigma concept is most directly used for probability of results as extreme assuming the null is true?

- A. a project kickoff meeting
- B. a final financial report
- C. an unrelated DMAIC deliverable
- D. p-value in context

68. Which Lean Six Sigma concept is most directly used for rejecting a true null hypothesis?

- A. a project kickoff meeting
- B. a final financial report
- C. Type I error
- D. an unrelated DMAIC deliverable

69. Which Lean Six Sigma concept is most directly used for failing to reject a false null hypothesis?

- A. a project kickoff meeting
- B. a final financial report
- C. an unrelated DMAIC deliverable
- D. Type II error

70. Which Lean Six Sigma concept is most directly used for probability of detecting a real effect?

- A. a project kickoff meeting
- B. a final financial report
- C. statistical power
- D. an unrelated DMAIC deliverable

71. Which Lean Six Sigma concept is most directly used for testing a sample mean against a target?

- A. a project kickoff meeting
- B. one-sample t test
- C. a final financial report

D. an unrelated DMAIC deliverable

72. Which Lean Six Sigma concept is most directly used for comparing the means of two independent groups?

- A. two-sample t test
- B. a project kickoff meeting
- C. a final financial report
- D. an unrelated DMAIC deliverable

73. Which Lean Six Sigma concept is most directly used for comparing linked before-and-after measurements?

- A. a project kickoff meeting
- B. paired t test
- C. a final financial report
- D. an unrelated DMAIC deliverable

74. Which Lean Six Sigma concept is most directly used for testing association or fit with categorical data?

- A. a project kickoff meeting
- B. a final financial report
- C. chi-square test
- D. an unrelated DMAIC deliverable

75. Which Lean Six Sigma concept is most directly used for comparing means across three or more groups?

- A. ANOVA in context
- B. a project kickoff meeting

- C. a final financial report
- D. an unrelated DMAIC deliverable

76. Which Lean Six Sigma concept is most directly used for generating many possible solutions before judging them?

- A. a project kickoff meeting
- B. a final financial report
- C. an unrelated DMAIC deliverable
- D. brainstorming in context

77. Which Lean Six Sigma concept is most directly used for ranking alternatives against weighted criteria?

- A. a project kickoff meeting
- B. solution selection matrix
- C. a final financial report
- D. an unrelated DMAIC deliverable

78. Which Lean Six Sigma concept is most directly used for testing a change on a limited scale before rollout?

- A. a project kickoff meeting
- B. a final financial report
- C. piloting in context
- D. an unrelated DMAIC deliverable

79. Which Lean Six Sigma concept is most directly used for studying factor effects through planned experimentation?

- A. design of experiments

- B. a project kickoff meeting
- C. a final financial report
- D. an unrelated DMAIC deliverable

80. Which Lean Six Sigma concept is most directly used for an input deliberately varied in an experiment?

- A. a project kickoff meeting
- B. a final financial report
- C. factor in context
- D. an unrelated DMAIC deliverable

81. Which Lean Six Sigma concept is most directly used for the measured outcome in an experiment?

- A. a project kickoff meeting
- B. a final financial report
- C. an unrelated DMAIC deliverable
- D. response in context

82. Which Lean Six Sigma concept is most directly used for average change in response due to one factor?

- A. a project kickoff meeting
- B. a final financial report
- C. an unrelated DMAIC deliverable
- D. main effect

83. Which Lean Six Sigma concept is most directly used for when one factor effect depends on another factor?

- A. interaction in context

- B. a project kickoff meeting
- C. a final financial report
- D. an unrelated DMAIC deliverable

84. A pilot change saves \$18,000 annually and costs \$6,000 to implement. What is the first-year net benefit?

- A. \$6,000
- B. \$12,000
- C. \$10,000
- D. \$24,000

85. Which Lean Six Sigma concept is most directly used for repeating experimental conditions to estimate variation?

- A. replication in context
- B. a project kickoff meeting
- C. a final financial report
- D. an unrelated DMAIC deliverable

86. Which Lean Six Sigma concept is most directly used for grouping similar experimental units to reduce nuisance variation?

- A. a project kickoff meeting
- B. blocking in context
- C. a final financial report
- D. an unrelated DMAIC deliverable

87. Which Lean Six Sigma concept is most directly used for preventing an error or making it immediately obvious?

- A. a project kickoff meeting
- B. a final financial report
- C. an unrelated DMAIC deliverable
- D. poka-yoke in context

88. Which Lean Six Sigma concept is most directly used for documenting the best current method for a task?

- A. a project kickoff meeting
- B. a final financial report
- C. standard work
- D. an unrelated DMAIC deliverable

89. Which Lean Six Sigma concept is most directly used for comparing expected benefits with required resources?

- A. a project kickoff meeting
- B. a final financial report
- C. cost-benefit analysis
- D. an unrelated DMAIC deliverable

90. Which Lean Six Sigma concept is most directly used for sequencing rollout tasks, ownership, training, and timing?

- A. implementation plan
- B. a project kickoff meeting
- C. a final financial report
- D. an unrelated DMAIC deliverable

91. Which Lean Six Sigma concept is most directly used for specifying monitoring, limits, owners, and reactions?

- A. a project kickoff meeting
- B. control plan
- C. a final financial report
- D. an unrelated DMAIC deliverable

92. Which Lean Six Sigma concept is most directly used for stating actions when a measure signals loss of control?

- A. a project kickoff meeting
- B. a final financial report
- C. an unrelated DMAIC deliverable
- D. reaction plan

93. Which Lean Six Sigma concept is most directly used for monitoring subgroup averages over time?

- A. X-bar chart
- B. a project kickoff meeting
- C. a final financial report
- D. an unrelated DMAIC deliverable

94. Which Lean Six Sigma concept is most directly used for monitoring within-subgroup ranges over time?

- A. a project kickoff meeting
- B. R chart
- C. a final financial report
- D. an unrelated DMAIC deliverable

95. Which Lean Six Sigma concept is most directly used for monitoring the fraction defective over time?

- A. a project kickoff meeting
- B. a final financial report
- C. p chart
- D. an unrelated DMAIC deliverable

96. Which Lean Six Sigma concept is most directly used for monitoring defects per unit when opportunity varies?

- A. a project kickoff meeting
- B. a final financial report
- C. an unrelated DMAIC deliverable
- D. u chart

97. Which Lean Six Sigma concept is most directly used for ensuring current approved procedures are used?

- A. a project kickoff meeting
- B. a final financial report
- C. document control
- D. an unrelated DMAIC deliverable

98. Which Lean Six Sigma concept is most directly used for building competence for the improved process?

- A. a project kickoff meeting
- B. training plan
- C. a final financial report
- D. an unrelated DMAIC deliverable

99. Which Lean Six Sigma concept is most directly used for checking adherence to standard work and controls?

- A. process audit
- B. a project kickoff meeting
- C. a final financial report
- D. an unrelated DMAIC deliverable

100. Which Lean Six Sigma concept is most directly used for transferring ownership and sustainment responsibility to the process owner?

- A. a project kickoff meeting
- B. a final financial report
- C. an unrelated DMAIC deliverable
- D. handoff in context

Practice Exam 13: Answer Key and Explanations

1. A — Six Sigma business value is correct. The question asks for the Green Belt tool or concept that directly supports linking improvement work to customer value and business results. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

2. B — process owner is correct. The question asks for the Green Belt tool or concept that directly supports owning the process and sustaining its performance. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

3. C — champion is correct. The question asks for the Green Belt tool or concept that directly supports removing barriers and aligning projects with strategy. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

4. D — project charter is correct. The question asks for the Green Belt tool or concept that directly supports authorizing the work and defining the business case. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

5. C — stakeholder analysis is correct. The question asks for the Green Belt tool or concept that directly supports identifying affected people and their influence. The keyed choice names that method precisely.

The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

6. D — team roles is correct. The question asks for the Green Belt tool or concept that directly supports clarifying responsibilities and decision authority. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

7. B — team development is correct. The question asks for the Green Belt tool or concept that directly supports helping a group progress from forming to performing. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

8. A — conflict resolution is correct. The question asks for the Green Belt tool or concept that directly supports addressing differences constructively to protect project progress. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

9. D — facilitation is correct. The question asks for the Green Belt tool or concept that directly supports guiding a team toward productive participation and decisions. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

10. C — communication plan is correct. The question asks for the Green Belt tool or concept that directly supports matching project information to stakeholder needs. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

11. B — financial benefits is correct. The question asks for the Green Belt tool or concept that directly supports quantifying savings, avoidance, or revenue impact. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

12. A — cost of poor quality is correct. The question asks for the Green Belt tool or concept that directly supports capturing costs caused by defects and failures. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

13. B — project selection matrix is correct. The question asks for the Green Belt tool or concept that directly supports ranking candidate projects against agreed criteria. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

14. D — ethical conduct is correct. The question asks for the Green Belt tool or concept that directly supports protecting data integrity and honest reporting. The keyed choice names that method precisely.

The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

15. C — Lean integration is correct. The question asks for the Green Belt tool or concept that directly supports removing waste while reducing variation. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

16. A — voice of the customer is correct. The question asks for the Green Belt tool or concept that directly supports turning customer needs into actionable requirements. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

17. C — critical-to-quality tree is correct. The question asks for the Green Belt tool or concept that directly supports decomposing broad needs into measurable drivers. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

18. A — Kano analysis is correct. The question asks for the Green Belt tool or concept that directly supports separating basic, performance, and delight attributes. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

19. B — SIPOC is correct. The question asks for the Green Belt tool or concept that directly supports framing suppliers, inputs, process, outputs, and customers. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

20. D — high-level process map is correct. The question asks for the Green Belt tool or concept that directly supports showing major steps and boundaries before detailed analysis. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

21. C — project scope is correct. The question asks for the Green Belt tool or concept that directly supports stating what the project includes and excludes. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

22. A — problem statement is correct. The question asks for the Green Belt tool or concept that directly supports describing the measurable performance gap without prescribing a solution. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

23. D — goal statement is correct. The question asks for the Green Belt tool or concept that directly supports setting a specific, measurable target and deadline. The keyed choice names that method

precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

24. B — baseline is correct. The question asks for the Green Belt tool or concept that directly supports documenting current performance before changes. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

25. A — risk assessment is correct. The question asks for the Green Belt tool or concept that directly supports anticipating project threats and response actions. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

26. D — work breakdown structure is correct. The question asks for the Green Belt tool or concept that directly supports breaking project deliverables into manageable work. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

27. C — Gantt chart is correct. The question asks for the Green Belt tool or concept that directly supports tracking tasks, owners, dates, and progress. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

28. B — network diagram is correct. The question asks for the Green Belt tool or concept that directly supports showing activity dependencies and critical paths. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

29. B — tollgate review is correct. The question asks for the Green Belt tool or concept that directly supports confirming phase deliverables before proceeding. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

30. C — RACI matrix is correct. The question asks for the Green Belt tool or concept that directly supports clarifying responsible, accountable, consulted, and informed roles. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

31. D — operational definition is correct. The question asks for the Green Belt tool or concept that directly supports making a measurement or classification repeatable. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

32. A — data collection plan is correct. The question asks for the Green Belt tool or concept that directly supports specifying data, sources, method, ownership, and frequency. The keyed choice names that

method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

33. C — sampling plan is correct. The question asks for the Green Belt tool or concept that directly supports selecting observations that represent the process. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

34. D — random sampling is correct. The question asks for the Green Belt tool or concept that directly supports giving units an equal chance of selection. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

35. A — stratification is correct. The question asks for the Green Belt tool or concept that directly supports separating data by meaningful categories to reveal patterns. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

36. B — measurement accuracy is correct. The question asks for the Green Belt tool or concept that directly supports closeness of readings to the true value. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

37. D — measurement precision is correct. The question asks for the Green Belt tool or concept that directly supports consistency among repeated readings. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

38. A — measurement bias is correct. The question asks for the Green Belt tool or concept that directly supports systematic difference from a reference value. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

39. C — linearity is correct. The question asks for the Green Belt tool or concept that directly supports change in measurement bias across the operating range. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

40. B — stability is correct. The question asks for the Green Belt tool or concept that directly supports consistency of a measurement system over time. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

41. C — repeatability is correct. The question asks for the Green Belt tool or concept that directly supports variation from one appraiser using one gauge repeatedly. The keyed choice names that method

precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

42. D — 0.4 mm is correct. The calculation uses the quantities supplied in the stem, not an assumed answer. Compute the requested metric directly, then compare the result with the four choices before selecting the answer. The other values reflect common arithmetic or formula errors, so they do not satisfy the stated Green Belt calculation.

43. A — gauge R&R is correct. The question asks for the Green Belt tool or concept that directly supports estimating combined repeatability and reproducibility variation. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

44. B — attribute agreement analysis is correct. The question asks for the Green Belt tool or concept that directly supports checking consistency of categorical ratings. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

45. A — process capability is correct. The question asks for the Green Belt tool or concept that directly supports comparing process spread and centering to specifications. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

46. D — 2 is correct. The calculation uses the quantities supplied in the stem, not an assumed answer. Compute the requested metric directly, then compare the result with the four choices before selecting the answer. The other values reflect common arithmetic or formula errors, so they do not satisfy the stated Green Belt calculation.

47. B — Cpk is correct. The question asks for the Green Belt tool or concept that directly supports measuring actual capability including process centering. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

48. C — normal probability plot is correct. The question asks for the Green Belt tool or concept that directly supports assessing whether data reasonably follow a normal distribution. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

49. C — box plot is correct. The question asks for the Green Belt tool or concept that directly supports displaying center, spread, and possible outliers. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

50. D — confidence interval is correct. The question asks for the Green Belt tool or concept that directly supports expressing a plausible range for a population parameter. The keyed choice names that method

precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

51. B — cause-and-effect matrix is correct. The question asks for the Green Belt tool or concept that directly supports prioritizing process inputs by their impact on outputs. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

52. A — 84 is correct. The calculation uses the quantities supplied in the stem, not an assumed answer. Compute the requested metric directly, then compare the result with the four choices before selecting the answer. The other values reflect common arithmetic or formula errors, so they do not satisfy the stated Green Belt calculation.

53. B — five whys is correct. The question asks for the Green Belt tool or concept that directly supports probing progressively toward an underlying cause. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

54. C — fishbone diagram is correct. The question asks for the Green Belt tool or concept that directly supports organizing possible causes under major categories. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

55. A — FMEA is correct. The question asks for the Green Belt tool or concept that directly supports anticipating failure modes, effects, and controls. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

56. D — risk priority number is correct. The question asks for the Green Belt tool or concept that directly supports multiplying severity, occurrence, and detection ratings. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

57. C — run chart is correct. The question asks for the Green Belt tool or concept that directly supports displaying performance over time without control limits. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

58. A — control chart is correct. The question asks for the Green Belt tool or concept that directly supports distinguishing common and special cause variation. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

59. B — common cause variation is correct. The question asks for the Green Belt tool or concept that directly supports describing routine variation built into the process. The keyed choice names that method

precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

60. D — special cause variation is correct. The question asks for the Green Belt tool or concept that directly supports identifying an unusual assignable source of variation. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

61. D — scatter plot is correct. The question asks for the Green Belt tool or concept that directly supports examining a possible relationship between two variables. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

62. B — correlation is correct. The question asks for the Green Belt tool or concept that directly supports quantifying association without proving causation. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

63. C — simple regression is correct. The question asks for the Green Belt tool or concept that directly supports estimating an outcome from one predictor. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

64. A — multiple regression is correct. The question asks for the Green Belt tool or concept that directly supports estimating an outcome from several predictors. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

65. B — null hypothesis is correct. The question asks for the Green Belt tool or concept that directly supports the default statement tested statistically. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

66. A — alternative hypothesis is correct. The question asks for the Green Belt tool or concept that directly supports the competing statement supported when evidence is sufficient. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

67. D — p-value is correct. The question asks for the Green Belt tool or concept that directly supports probability of results as extreme assuming the null is true. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

68. C — Type I error is correct. The question asks for the Green Belt tool or concept that directly supports rejecting a true null hypothesis. The keyed choice names that method precisely. The other

options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

69. D — Type II error is correct. The question asks for the Green Belt tool or concept that directly supports failing to reject a false null hypothesis. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

70. C — statistical power is correct. The question asks for the Green Belt tool or concept that directly supports probability of detecting a real effect. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

71. B — one-sample t test is correct. The question asks for the Green Belt tool or concept that directly supports testing a sample mean against a target. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

72. A — two-sample t test is correct. The question asks for the Green Belt tool or concept that directly supports comparing the means of two independent groups. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

73. B — paired t test is correct. The question asks for the Green Belt tool or concept that directly supports comparing linked before-and-after measurements. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

74. C — chi-square test is correct. The question asks for the Green Belt tool or concept that directly supports testing association or fit with categorical data. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

75. A — ANOVA is correct. The question asks for the Green Belt tool or concept that directly supports comparing means across three or more groups. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

76. D — brainstorming is correct. The question asks for the Green Belt tool or concept that directly supports generating many possible solutions before judging them. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

77. B — solution selection matrix is correct. The question asks for the Green Belt tool or concept that directly supports ranking alternatives against weighted criteria. The keyed choice names that method

precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

78. C — piloting is correct. The question asks for the Green Belt tool or concept that directly supports testing a change on a limited scale before rollout. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

79. A — design of experiments is correct. The question asks for the Green Belt tool or concept that directly supports studying factor effects through planned experimentation. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

80. C — factor is correct. The question asks for the Green Belt tool or concept that directly supports an input deliberately varied in an experiment. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

81. D — response is correct. The question asks for the Green Belt tool or concept that directly supports the measured outcome in an experiment. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

82. D — main effect is correct. The question asks for the Green Belt tool or concept that directly supports average change in response due to one factor. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

83. A — interaction is correct. The question asks for the Green Belt tool or concept that directly supports when one factor effect depends on another factor. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

84. B — \$12,000 is correct. The calculation uses the quantities supplied in the stem, not an assumed answer. Compute the requested metric directly, then compare the result with the four choices before selecting the answer. The other values reflect common arithmetic or formula errors, so they do not satisfy the stated Green Belt calculation.

85. A — replication is correct. The question asks for the Green Belt tool or concept that directly supports repeating experimental conditions to estimate variation. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

86. B — blocking is correct. The question asks for the Green Belt tool or concept that directly supports grouping similar experimental units to reduce nuisance variation. The keyed choice names that method

precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

87. D — poka-yoke is correct. The question asks for the Green Belt tool or concept that directly supports preventing an error or making it immediately obvious. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

88. C — standard work is correct. The question asks for the Green Belt tool or concept that directly supports documenting the best current method for a task. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

89. C — cost-benefit analysis is correct. The question asks for the Green Belt tool or concept that directly supports comparing expected benefits with required resources. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

90. A — implementation plan is correct. The question asks for the Green Belt tool or concept that directly supports sequencing rollout tasks, ownership, training, and timing. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

91. B — control plan is correct. The question asks for the Green Belt tool or concept that directly supports specifying monitoring, limits, owners, and reactions. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

92. D — reaction plan is correct. The question asks for the Green Belt tool or concept that directly supports stating actions when a measure signals loss of control. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

93. A — X-bar chart is correct. The question asks for the Green Belt tool or concept that directly supports monitoring subgroup averages over time. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

94. B — R chart is correct. The question asks for the Green Belt tool or concept that directly supports monitoring within-subgroup ranges over time. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

95. C — p chart is correct. The question asks for the Green Belt tool or concept that directly supports monitoring the fraction defective over time. The keyed choice names that method precisely. The other

options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

96. D — u chart is correct. The question asks for the Green Belt tool or concept that directly supports monitoring defects per unit when opportunity varies. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

97. C — document control is correct. The question asks for the Green Belt tool or concept that directly supports ensuring current approved procedures are used. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

98. B — training plan is correct. The question asks for the Green Belt tool or concept that directly supports building competence for the improved process. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

99. A — process audit is correct. The question asks for the Green Belt tool or concept that directly supports checking adherence to standard work and controls. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.

100. D — handoff is correct. The question asks for the Green Belt tool or concept that directly supports transferring ownership and sustainment responsibility to the process owner. The keyed choice names that method precisely. The other options are project artifacts or activities, but they do not perform the stated analytical, management, or control function in a DMAIC improvement project.