

PRACTICE EXAM 9: SIX SIGMA GREEN BELT (100 QUESTIONS)

This original practice exam contains 100 scenario-based multiple-choice questions across core Six Sigma Green Belt concepts. Select the single best answer for each item, then use the answer key and explanations to guide further study. This is not an official certification examination.

1. During improvement work in a patient-registration service, which statement best defines a Six Sigma project charter?

- A. A final celebration held after all project decisions are complete.
- B. A marketing dashboard intended for advertising campaign review.
- C. A concise authorization that states the business case, scope, goals, and roles.
- D. A billing document created after the customer transaction closes.

2. For a Six Sigma team in a technical support center, choose the best completion: a process is said to be in control when it is characterized primarily by.

- A. A marketing dashboard intended for advertising campaign review.
- B. Only common-cause variation within stable control limits.
- C. A billing document created after the customer transaction closes.
- D. A payroll reconciliation completed for the finance department.

3. The team at a packaging process needs to explain critical-to-quality requirement represent; which option is correct?

- A. A measurable customer need that strongly affects perceived quality.
- B. A billing document created after the customer transaction closes.
- C. A payroll reconciliation completed for the finance department.

D. A final celebration held after all project decisions are complete.

4. In a warehouse operation, the team asks: The voice of the customer is most useful for identifying?

- A. A payroll reconciliation completed for the finance department.
- B. A final celebration held after all project decisions are complete.
- C. A marketing dashboard intended for advertising campaign review.
- D. Customer needs, priorities, and definitions of value.

5. In a patient-registration service, the team asks: In DMAIC, the primary purpose of the Define phase is to?

- A. Clarify the problem, customers, scope, goals, and project team.
- B. A final celebration held after all project decisions are complete.
- C. A marketing dashboard intended for advertising campaign review.
- D. A billing document created after the customer transaction closes.

6. For a Six Sigma team in a technical support center, choose the best completion: a SIPOC diagram is most useful early in a project because it.

- A. A marketing dashboard intended for advertising campaign review.
- B. A billing document created after the customer transaction closes.
- C. A payroll reconciliation completed for the finance department.
- D. Maps suppliers, inputs, process, outputs, and customers at a high level.

7. In a packaging process, the team asks: Operational definition means?

- A. A billing document created after the customer transaction closes.
- B. A precise, repeatable rule for measuring or classifying something.
- C. A payroll reconciliation completed for the finance department.
- D. A final celebration held after all project decisions are complete.

8. For a Six Sigma team in a warehouse operation, choose the best completion: a measurement system analysis is performed to determine whether.

- A. A payroll reconciliation completed for the finance department.
- B. A final celebration held after all project decisions are complete.
- C. The measurement process is sufficiently reliable for its intended use.
- D. A marketing dashboard intended for advertising campaign review.

9. In a patient-registration service, the team asks: Repeatability in a gauge study describes variation caused by?

- A. A final celebration held after all project decisions are complete.
- B. The same appraiser measuring the same item repeatedly.
- C. A marketing dashboard intended for advertising campaign review.
- D. A billing document created after the customer transaction closes.

10. In a technical support center, the team asks: Reproducibility in a gauge study describes variation caused by?

- A. Different appraisers measuring the same items.
- B. A marketing dashboard intended for advertising campaign review.
- C. A billing document created after the customer transaction closes.
- D. A payroll reconciliation completed for the finance department.

11. For a Six Sigma team in a packaging process, choose the best completion: a sampling frame is.

- A. A billing document created after the customer transaction closes.
- B. A payroll reconciliation completed for the finance department.
- C. A final celebration held after all project decisions are complete.
- D. The complete list or source from which a sample can be drawn.

12. In a warehouse operation, the team asks: Stratified sampling is especially useful when?

- A. A payroll reconciliation completed for the finance department.
- B. A final celebration held after all project decisions are complete.
- C. Important subgroups should each be represented in the sample.
- D. A marketing dashboard intended for advertising campaign review.

13. For a Six Sigma team in a patient-registration service, choose the best completion: a check sheet is primarily used to.

- A. A final celebration held after all project decisions are complete.
- B. Collect and tally data consistently at the point of occurrence.
- C. A marketing dashboard intended for advertising campaign review.
- D. A billing document created after the customer transaction closes.

14. For a Six Sigma team in a technical support center, choose the best completion: a run chart displays.

- A. Data in time order without calculated control limits.
- B. A marketing dashboard intended for advertising campaign review.
- C. A billing document created after the customer transaction closes.
- D. A payroll reconciliation completed for the finance department.

15. For a Six Sigma team in a packaging process, choose the best completion: a Pareto chart is based on the principle that.

- A. A billing document created after the customer transaction closes.
- B. A payroll reconciliation completed for the finance department.
- C. A relatively few categories often account for much of the effect.
- D. A final celebration held after all project decisions are complete.

16. For a Six Sigma team in a warehouse operation, choose the best completion: a cause-and-effect diagram is used to.

- A. A payroll reconciliation completed for the finance department.
- B. A final celebration held after all project decisions are complete.
- C. A marketing dashboard intended for advertising campaign review.
- D. Organize possible causes of a problem into logical categories.

17. In a patient-registration service, the team asks: The five-whys technique is intended to?

- A. Probe progressively from a symptom toward an underlying cause.
- B. A final celebration held after all project decisions are complete.
- C. A marketing dashboard intended for advertising campaign review.
- D. A billing document created after the customer transaction closes.

18. For a Six Sigma team in a technical support center, choose the best completion: a scatter plot is most appropriate for examining.

- A. A marketing dashboard intended for advertising campaign review.
- B. A billing document created after the customer transaction closes.
- C. A payroll reconciliation completed for the finance department.
- D. The relationship between two quantitative variables.

19. In a packaging process, the team asks: Correlation alone does not establish causation because?

- A. A billing document created after the customer transaction closes.
- B. A payroll reconciliation completed for the finance department.
- C. An observed association may be due to other factors or chance.
- D. A final celebration held after all project decisions are complete.

20. For a Six Sigma team in a warehouse operation, choose the best completion: a process map differs from a SIPOC because a process map.

- A. A payroll reconciliation completed for the finance department.
- B. Shows the sequence of detailed activities and decision points.
- C. A final celebration held after all project decisions are complete.
- D. A marketing dashboard intended for advertising campaign review.

21. In a patient-registration service, the team asks: Value-added analysis asks whether an activity?

- A. A final celebration held after all project decisions are complete.
- B. A marketing dashboard intended for advertising campaign review.
- C. A billing document created after the customer transaction closes.
- D. Changes the product or service in a way the customer values.

22. In a technical support center, the team asks: Failure mode and effects analysis ranks risks using?

- A. A marketing dashboard intended for advertising campaign review.
- B. Severity, occurrence, and detection evaluations.
- C. A billing document created after the customer transaction closes.
- D. A payroll reconciliation completed for the finance department.

23. For a Six Sigma team in a packaging process, choose the best completion: a fishbone diagram should be followed by.

- A. Evidence gathering to test the most plausible candidate causes.
- B. A billing document created after the customer transaction closes.
- C. A payroll reconciliation completed for the finance department.
- D. A final celebration held after all project decisions are complete.

24. In a warehouse operation, the team asks: Brainstorming is most effective when the team initially?

- A. A payroll reconciliation completed for the finance department.
- B. A final celebration held after all project decisions are complete.
- C. Generates ideas freely before judging or selecting them.
- D. A marketing dashboard intended for advertising campaign review.

25. For a Six Sigma team in a patient-registration service, choose the best completion: a pilot test is conducted to.

- A. A final celebration held after all project decisions are complete.
- B. Evaluate a proposed solution on a limited scale before broad deployment.
- C. A marketing dashboard intended for advertising campaign review.
- D. A billing document created after the customer transaction closes.

26. In a technical support center, the team asks: Poka-yoke refers to?

- A. A marketing dashboard intended for advertising campaign review.
- B. A billing document created after the customer transaction closes.
- C. A method that prevents errors or makes them immediately obvious.
- D. A payroll reconciliation completed for the finance department.

27. In a packaging process, the team asks: Standard work is valuable after improvement because it?

- A. Documents the best known method so the new process is performed consistently.
- B. A billing document created after the customer transaction closes.
- C. A payroll reconciliation completed for the finance department.
- D. A final celebration held after all project decisions are complete.

28. For a Six Sigma team in a warehouse operation, choose the best completion: a future-state process map should describe.

- A. A payroll reconciliation completed for the finance department.
- B. A final celebration held after all project decisions are complete.
- C. A marketing dashboard intended for advertising campaign review.
- D. The intended flow after waste and causes have been addressed.

29. For a Six Sigma team in a patient-registration service, choose the best completion: a force-field analysis helps a team identify.

- A. A final celebration held after all project decisions are complete.
- B. A marketing dashboard intended for advertising campaign review.
- C. A billing document created after the customer transaction closes.
- D. Forces that support or resist a proposed change.

30. For a Six Sigma team in a technical support center, choose the best completion: a control plan should specify.

- A. A marketing dashboard intended for advertising campaign review.
- B. A billing document created after the customer transaction closes.
- C. What to monitor, how to measure it, who acts, and what action to take.
- D. A payroll reconciliation completed for the finance department.

31. For a Six Sigma team in a packaging process, choose the best completion: a reaction plan is triggered when.

- A. A billing document created after the customer transaction closes.
- B. A monitored process shows a defined out-of-control or unacceptable condition.
- C. A payroll reconciliation completed for the finance department.
- D. A final celebration held after all project decisions are complete.

32. In a warehouse operation, the team asks: Visual management primarily improves control by?

- A. Making status, standards, and abnormalities easy to see quickly.
- B. A payroll reconciliation completed for the finance department.
- C. A final celebration held after all project decisions are complete.
- D. A marketing dashboard intended for advertising campaign review.

33. In a patient-registration service, the team asks: Document control is important because it?

- A. Ensures people use the current approved process instructions.
- B. A final celebration held after all project decisions are complete.
- C. A marketing dashboard intended for advertising campaign review.
- D. A billing document created after the customer transaction closes.

34. For a Six Sigma team in a technical support center, choose the best completion: a control chart is used to.

- A. A marketing dashboard intended for advertising campaign review.
- B. A billing document created after the customer transaction closes.
- C. A payroll reconciliation completed for the finance department.
- D. Distinguish routine common-cause variation from special-cause signals.

35. In a packaging process, the team asks: The arithmetic mean is calculated by?

- A. A billing document created after the customer transaction closes.
- B. A payroll reconciliation completed for the finance department.
- C. Adding all observations and dividing by the number of observations.
- D. A final celebration held after all project decisions are complete.

36. In a warehouse operation, the team asks: The median is particularly useful when data are?

- A. A payroll reconciliation completed for the finance department.
- B. Skewed or contain extreme values that distort the mean.

- C. A final celebration held after all project decisions are complete.
- D. A marketing dashboard intended for advertising campaign review.

37. In a patient-registration service, the team asks: Standard deviation describes?

- A. A final celebration held after all project decisions are complete.
- B. The typical spread of individual values around their mean.
- C. A marketing dashboard intended for advertising campaign review.
- D. A billing document created after the customer transaction closes.

38. In a technical support center, the team asks: The range of a data set is?

- A. A marketing dashboard intended for advertising campaign review.
- B. A billing document created after the customer transaction closes.
- C. The maximum value minus the minimum value.
- D. A payroll reconciliation completed for the finance department.

39. For a Six Sigma team in a packaging process, choose the best completion: a histogram is best used to show.

- A. The distribution shape of quantitative data grouped into intervals.
- B. A billing document created after the customer transaction closes.
- C. A payroll reconciliation completed for the finance department.
- D. A final celebration held after all project decisions are complete.

40. For a Six Sigma team in a warehouse operation, choose the best completion: a box plot displays.

- A. A payroll reconciliation completed for the finance department.
- B. A final celebration held after all project decisions are complete.
- C. A marketing dashboard intended for advertising campaign review.
- D. Median, quartiles, spread, and potential outlying observations.

41. For a Six Sigma team in a patient-registration service, choose the best completion: a nominal scale classifies data into.

- A. A final celebration held after all project decisions are complete.
- B. A marketing dashboard intended for advertising campaign review.
- C. Named categories with no inherent order.
- D. A billing document created after the customer transaction closes.

42. In a technical support center, the team asks: An ordinal scale classifies data into?

- A. A marketing dashboard intended for advertising campaign review.
- B. A billing document created after the customer transaction closes.
- C. A payroll reconciliation completed for the finance department.
- D. Ordered categories whose distances are not necessarily equal.

43. For a Six Sigma team in a packaging process, choose the best completion: a confidence interval provides.

- A. A billing document created after the customer transaction closes.
- B. A plausible range for a population value based on sample data.
- C. A payroll reconciliation completed for the finance department.
- D. A final celebration held after all project decisions are complete.

44. For a Six Sigma team in a warehouse operation, choose the best completion: a p-value is.

- A. The probability of results at least as extreme if the null hypothesis were true.
- B. A payroll reconciliation completed for the finance department.
- C. A final celebration held after all project decisions are complete.
- D. A marketing dashboard intended for advertising campaign review.

45. For a Six Sigma team in a patient-registration service, choose the best completion: a Type I error occurs when a team.

- A. A final celebration held after all project decisions are complete.
- B. Rejects a true null hypothesis.
- C. A marketing dashboard intended for advertising campaign review.
- D. A billing document created after the customer transaction closes.

46. For a Six Sigma team in a technical support center, choose the best completion: a Type II error occurs when a team.

- A. Fails to reject a false null hypothesis.
- B. A marketing dashboard intended for advertising campaign review.
- C. A billing document created after the customer transaction closes.
- D. A payroll reconciliation completed for the finance department.

47. In a packaging process, the team asks: Statistical power is the probability of?

- A. A billing document created after the customer transaction closes.
- B. A payroll reconciliation completed for the finance department.
- C. A final celebration held after all project decisions are complete.
- D. Rejecting a false null hypothesis.

48. In a warehouse operation, the team asks: Randomization in an experiment helps?

- A. A payroll reconciliation completed for the finance department.
- B. A final celebration held after all project decisions are complete.
- C. Balance unknown influences across treatment conditions.
- D. A marketing dashboard intended for advertising campaign review.

49. In a patient-registration service, the team asks: C_p compares?

- A. The specification width with the natural process spread.
- B. A final celebration held after all project decisions are complete.
- C. A marketing dashboard intended for advertising campaign review.
- D. A billing document created after the customer transaction closes.

50. In a technical support center, the team asks: C_{pk} differs from C_p because C_{pk} ?

- A. A marketing dashboard intended for advertising campaign review.
- B. Accounts for how centered the process mean is within specifications.
- C. A billing document created after the customer transaction closes.
- D. A payroll reconciliation completed for the finance department.

51. For a Six Sigma team in a packaging process, choose the best completion: a process can be capable only when.

- A. A billing document created after the customer transaction closes.
- B. A payroll reconciliation completed for the finance department.
- C. A final celebration held after all project decisions are complete.
- D. Its natural variation fits within customer specification limits.

52. For a Six Sigma team in a warehouse operation, choose the best completion: a specification limit is established by.

- A. A payroll reconciliation completed for the finance department.
- B. A final celebration held after all project decisions are complete.
- C. Customer, design, or business requirements.
- D. A marketing dashboard intended for advertising campaign review.

53. For a Six Sigma team in a patient-registration service, choose the best completion: a control limit is calculated from.

- A. The observed process behavior over time.
- B. A final celebration held after all project decisions are complete.
- C. A marketing dashboard intended for advertising campaign review.
- D. A billing document created after the customer transaction closes.

54. In a technical support center, the team asks: The purpose of 5S is to?

- A. A marketing dashboard intended for advertising campaign review.
- B. A billing document created after the customer transaction closes.
- C. Create an orderly, visible, and disciplined workplace.
- D. A payroll reconciliation completed for the finance department.

55. In a packaging process, the team asks: Value stream mapping is used to?

- A. A billing document created after the customer transaction closes.
- B. Visualize material and information flow across an end-to-end value stream.
- C. A payroll reconciliation completed for the finance department.
- D. A final celebration held after all project decisions are complete.

56. For a Six Sigma team in a warehouse operation, choose the best completion: a pull system authorizes work based on.

- A. A payroll reconciliation completed for the finance department.
- B. A final celebration held after all project decisions are complete.
- C. A marketing dashboard intended for advertising campaign review.
- D. Actual downstream demand or consumption.

57. In a patient-registration service, the team asks: Kanban is commonly used to?

- A. A final celebration held after all project decisions are complete.
- B. A marketing dashboard intended for advertising campaign review.
- C. Signal replenishment or authorize production in a pull system.
- D. A billing document created after the customer transaction closes.

58. In a technical support center, the team asks: Cycle time is?

- A. The time required to complete one unit or one process cycle.
- B. A marketing dashboard intended for advertising campaign review.
- C. A billing document created after the customer transaction closes.
- D. A payroll reconciliation completed for the finance department.

59. In a packaging process, the team asks: Takt time is?

- A. A billing document created after the customer transaction closes.
- B. A payroll reconciliation completed for the finance department.
- C. A final celebration held after all project decisions are complete.
- D. The available production time divided by customer demand.

60. For a Six Sigma team in a warehouse operation, choose the best completion: a bottleneck is the step that.

- A. A payroll reconciliation completed for the finance department.
- B. Has the least effective capacity and constrains overall throughput.
- C. A final celebration held after all project decisions are complete.
- D. A marketing dashboard intended for advertising campaign review.

61. In a patient-registration service, the team asks: Work in process inventory is especially important because it?

- A. A final celebration held after all project decisions are complete.

- B. A marketing dashboard intended for advertising campaign review.
- C. Can hide delays, quality problems, and uneven flow.
- D. A billing document created after the customer transaction closes.

62. For a Six Sigma team in a technical support center, choose the best completion: a stakeholder analysis should identify.

- A. A marketing dashboard intended for advertising campaign review.
- B. Interested parties, their influence, needs, and engagement approach.
- C. A billing document created after the customer transaction closes.
- D. A payroll reconciliation completed for the finance department.

63. For a Six Sigma team in a packaging process, choose the best completion: a SMART goal is.

- A. Specific, measurable, achievable, relevant, and time-bound.
- B. A billing document created after the customer transaction closes.
- C. A payroll reconciliation completed for the finance department.
- D. A final celebration held after all project decisions are complete.

64. For a Six Sigma team in a warehouse operation, choose the best completion: a project scope statement should clarify.

- A. A payroll reconciliation completed for the finance department.
- B. A final celebration held after all project decisions are complete.
- C. A marketing dashboard intended for advertising campaign review.
- D. What is included, excluded, and bounded by the project.

65. For a Six Sigma team in a patient-registration service, choose the best completion: a RACI matrix clarifies.

- A. A final celebration held after all project decisions are complete.

- B. Who is responsible, accountable, consulted, and informed.
- C. A marketing dashboard intended for advertising campaign review.
- D. A billing document created after the customer transaction closes.

66. For a Six Sigma team in a technical support center, choose the best completion: a Gantt chart is useful for.

- A. Displaying planned tasks and their timing on a project schedule.
- B. A marketing dashboard intended for advertising campaign review.
- C. A billing document created after the customer transaction closes.
- D. A payroll reconciliation completed for the finance department.

67. For a Six Sigma team in a packaging process, choose the best completion: a risk register is used to.

- A. A billing document created after the customer transaction closes.
- B. A payroll reconciliation completed for the finance department.
- C. Record project risks, owners, responses, and monitoring actions.
- D. A final celebration held after all project decisions are complete.

68. For a Six Sigma team in a warehouse operation, choose the best completion: a factorial experiment is designed to.

- A. A payroll reconciliation completed for the finance department.
- B. A final celebration held after all project decisions are complete.
- C. A marketing dashboard intended for advertising campaign review.
- D. Study multiple factors and possible interactions efficiently.

69. In a patient-registration service, the team asks: An interaction exists when?

- A. A final celebration held after all project decisions are complete.
- B. A marketing dashboard intended for advertising campaign review.

- C. A billing document created after the customer transaction closes.
- D. The effect of one factor depends on the level of another factor.

70. For a Six Sigma team in a technical support center, choose the best completion: a response variable is.

- A. A marketing dashboard intended for advertising campaign review.
- B. A billing document created after the customer transaction closes.
- C. The measured outcome affected by experimental factor settings.
- D. A payroll reconciliation completed for the finance department.

71. For a Six Sigma team in a packaging process, choose the best completion: a factor in a designed experiment is.

- A. A billing document created after the customer transaction closes.
- B. An input deliberately varied to study its effect on a response.
- C. A payroll reconciliation completed for the finance department.
- D. A final celebration held after all project decisions are complete.

72. In a warehouse operation, the team asks: Replication in an experiment helps?

- A. Estimate experimental error and improve precision.
- B. A payroll reconciliation completed for the finance department.
- C. A final celebration held after all project decisions are complete.
- D. A marketing dashboard intended for advertising campaign review.

73. In a patient-registration service, the team asks: Blocking is used to?

- A. Account for a known nuisance source of variation.
- B. A final celebration held after all project decisions are complete.
- C. A marketing dashboard intended for advertising campaign review.

D. A billing document created after the customer transaction closes.

74. In a technical support center, the team asks: An individuals chart is appropriate when?

- A. A marketing dashboard intended for advertising campaign review.
- B. A billing document created after the customer transaction closes.
- C. Measurements are collected one at a time rather than in rational subgroups.
- D. A payroll reconciliation completed for the finance department.

75. In a packaging process, the team asks: An X-bar and R chart is appropriate when?

- A. A billing document created after the customer transaction closes.
- B. Continuous data are collected in small rational subgroups.
- C. A payroll reconciliation completed for the finance department.
- D. A final celebration held after all project decisions are complete.

76. For a Six Sigma team in a warehouse operation, choose the best completion: a p chart monitors.

- A. A payroll reconciliation completed for the finance department.
- B. A final celebration held after all project decisions are complete.
- C. A marketing dashboard intended for advertising campaign review.
- D. The fraction nonconforming when sample sizes may vary.

77. For a Six Sigma team in a patient-registration service, choose the best completion: a c chart monitors.

- A. A final celebration held after all project decisions are complete.
- B. A marketing dashboard intended for advertising campaign review.
- C. The count of defects per constant inspection unit.
- D. A billing document created after the customer transaction closes.

78. For a Six Sigma team in a technical support center, choose the best completion: a u chart monitors.

- A. A marketing dashboard intended for advertising campaign review.
- B. Defects per unit when the inspection opportunity varies.
- C. A billing document created after the customer transaction closes.
- D. A payroll reconciliation completed for the finance department.

79. In a packaging process, the team asks: An np chart monitors?

- A. The number nonconforming when the sample size is constant.
- B. A billing document created after the customer transaction closes.
- C. A payroll reconciliation completed for the finance department.
- D. A final celebration held after all project decisions are complete.

80. For a Six Sigma team in a warehouse operation, choose the best completion: a defect is.

- A. A payroll reconciliation completed for the finance department.
- B. A final celebration held after all project decisions are complete.
- C. A marketing dashboard intended for advertising campaign review.
- D. Any failure to meet a specified requirement.

81. For a Six Sigma team in a patient-registration service, choose the best completion: a defective unit is.

- A. A final celebration held after all project decisions are complete.
- B. A marketing dashboard intended for advertising campaign review.
- C. A unit with one or more defects.
- D. A billing document created after the customer transaction closes.

82. In a technical support center, the team asks: First-pass yield measures?

- A. A marketing dashboard intended for advertising campaign review.
- B. The proportion of units that pass a process without rework.
- C. A billing document created after the customer transaction closes.
- D. A payroll reconciliation completed for the finance department.

83. In a packaging process, the team asks: Rolled throughput yield estimates?

- A. A billing document created after the customer transaction closes.
- B. A payroll reconciliation completed for the finance department.
- C. A final celebration held after all project decisions are complete.
- D. The probability that a unit passes all steps without defects.

84. In a warehouse operation, the team asks: Cost of poor quality includes?

- A. Costs caused by failures, appraisal, and prevention activities.
- B. A payroll reconciliation completed for the finance department.
- C. A final celebration held after all project decisions are complete.
- D. A marketing dashboard intended for advertising campaign review.

85. In a patient-registration service, the team asks: An internal failure cost occurs when?

- A. A final celebration held after all project decisions are complete.
- B. A defect is found before the product or service reaches the customer.
- C. A marketing dashboard intended for advertising campaign review.
- D. A billing document created after the customer transaction closes.

86. In a technical support center, the team asks: An external failure cost occurs when?

- A. A defect is discovered after it reaches the customer.

- B. A marketing dashboard intended for advertising campaign review.
- C. A billing document created after the customer transaction closes.
- D. A payroll reconciliation completed for the finance department.

87. For a Six Sigma team in a packaging process, choose the best completion: a baseline is.

- A. A billing document created after the customer transaction closes.
- B. A payroll reconciliation completed for the finance department.
- C. The documented current performance level before changes are made.
- D. A final celebration held after all project decisions are complete.

88. For a Six Sigma team in a warehouse operation, choose the best completion: a data collection plan should define.

- A. A payroll reconciliation completed for the finance department.
- B. A final celebration held after all project decisions are complete.
- C. A marketing dashboard intended for advertising campaign review.
- D. What data are needed, who collects them, when, and by what method.

89. In a patient-registration service, the team asks: Data normalization is used when?

- A. A final celebration held after all project decisions are complete.
- B. A marketing dashboard intended for advertising campaign review.
- C. Results must be adjusted to a common basis for fair comparison.
- D. A billing document created after the customer transaction closes.

90. For a Six Sigma team in a technical support center, choose the best completion: a discrete variable is one that.

- A. A marketing dashboard intended for advertising campaign review.
- B. Takes countable separate values.

- C. A billing document created after the customer transaction closes.
- D. A payroll reconciliation completed for the finance department.

91. For a Six Sigma team in a packaging process, choose the best completion: a continuous variable is one that.

- A. A billing document created after the customer transaction closes.
- B. A payroll reconciliation completed for the finance department.
- C. A final celebration held after all project decisions are complete.
- D. Can take any value within a measurement interval.

92. For a Six Sigma team in a warehouse operation, choose the best completion: a rational subgroup is formed so that.

- A. Within-group variation reflects only short-term common causes.
- B. A payroll reconciliation completed for the finance department.
- C. A final celebration held after all project decisions are complete.
- D. A marketing dashboard intended for advertising campaign review.

93. In a patient-registration service, the team asks: An outlier should be handled by?

- A. A final celebration held after all project decisions are complete.
- B. A marketing dashboard intended for advertising campaign review.
- C. Investigating its source before deciding whether exclusion is justified.
- D. A billing document created after the customer transaction closes.

94. In a technical support center, the team asks: Resistance to change is best addressed by?

- A. A marketing dashboard intended for advertising campaign review.
- B. Understanding concerns and involving affected people in the transition.
- C. A billing document created after the customer transaction closes.

D. A payroll reconciliation completed for the finance department.

95. For a Six Sigma team in a packaging process, choose the best completion: a communication plan should specify.

- A. Audience, message, channel, timing, and owner.
- B. A billing document created after the customer transaction closes.
- C. A payroll reconciliation completed for the finance department.
- D. A final celebration held after all project decisions are complete.

96. In a warehouse operation, the team asks: Training after a process change should focus on?

- A. A payroll reconciliation completed for the finance department.
- B. A final celebration held after all project decisions are complete.
- C. A marketing dashboard intended for advertising campaign review.
- D. The new standard work, required skills, and evidence of competence.

97. For a Six Sigma team in a patient-registration service, choose the best completion: a Green Belt should report data in a way that.

- A. A final celebration held after all project decisions are complete.
- B. Accurately represents the method, results, limitations, and uncertainty.
- C. A marketing dashboard intended for advertising campaign review.
- D. A billing document created after the customer transaction closes.

98. In a technical support center, the team asks: When a project analysis reveals an unfavorable result, the Green Belt should?

- A. Report the result accurately and help the team understand its implications.
- B. A marketing dashboard intended for advertising campaign review.
- C. A billing document created after the customer transaction closes.

D. A payroll reconciliation completed for the finance department.

99. In a packaging process, the team asks: Kaizen is best described as?

- A. A billing document created after the customer transaction closes.
- B. A payroll reconciliation completed for the finance department.
- C. A final celebration held after all project decisions are complete.
- D. A disciplined approach to continuous, incremental improvement.

100. For a Six Sigma team in a warehouse operation, choose the best completion: a process owner is accountable for.

- A. A payroll reconciliation completed for the finance department.
- B. A final celebration held after all project decisions are complete.
- C. Sustaining the process performance and responding to control-plan signals.
- D. A marketing dashboard intended for advertising campaign review.

Practice Exam 9: Answer Key and Explanations

1. C — A concise authorization that states the business case, scope, goals, and roles. It formally launches a bounded improvement effort and gives the team shared direction. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma

2. B — Only common-cause variation within stable control limits. Control concerns predictable process behavior, not whether the output meets requirements. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the project

3. A — A measurable customer need that strongly affects perceived quality. CTQs translate the voice of the customer into operational requirements. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the

- 4. D** — Customer needs, priorities, and definitions of value. VOC supplies evidence about what customers value before solutions are selected. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the project
- 5. A** — Clarify the problem, customers, scope, goals, and project team. Define establishes the project frame so later analysis addresses the right problem. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use,
- 6. D** — Maps suppliers, inputs, process, outputs, and customers at a high level. SIPOC gives the team a common boundary view without excessive detail. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data
- 7. B** — A precise, repeatable rule for measuring or classifying something. It reduces interpretation differences between people collecting the data. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the project
- 8. C** — The measurement process is sufficiently reliable for its intended use. Data-driven decisions require evidence that the gauge and method are trustworthy. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use,
- 9. B** — The same appraiser measuring the same item repeatedly. Repeatability isolates equipment or method variation under one operator. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the project conclusion,
- 10. A** — Different appraisers measuring the same items. Reproducibility captures the operator-to-operator component of measurement variation. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the project conclusion, and helps the
- 11. D** — The complete list or source from which a sample can be drawn. A sound frame is necessary to make the planned sample represent the target population. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six

12. C — Important subgroups should each be represented in the sample. Separating meaningful strata can improve coverage and reveal subgroup differences. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the

13. B — Collect and tally data consistently at the point of occurrence. Its simple structure makes patterns visible while preserving the original observations. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use,

14. A — Data in time order without calculated control limits. It helps reveal trends, shifts, or cycles before a control-chart analysis. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the

15. C — A relatively few categories often account for much of the effect. Ranking categories by frequency or impact helps focus limited improvement resources. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data

16. D — Organize possible causes of a problem into logical categories. It supports broad cause generation before the team tests which causes matter. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use,

17. A — Probe progressively from a symptom toward an underlying cause. Repeated questioning can expose a process condition that produced the visible failure. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use,

18. D — The relationship between two quantitative variables. The plot can reveal direction, form, and unusual observations before modeling. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the project conclusion,

19. C — An observed association may be due to other factors or chance. A relationship in data must be supported by process knowledge or designed evidence. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method

20. B — Shows the sequence of detailed activities and decision points. The map exposes handoffs, rework, queues, and opportunities inside the process. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens

21. D — Changes the product or service in a way the customer values. Necessary but non-value-added work may remain, but should be minimized or simplified. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves

22. B — Severity, occurrence, and detection evaluations. FMEA prioritizes potential failures so prevention work targets the most significant risks. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the project conclusion,

23. A — Evidence gathering to test the most plausible candidate causes. The diagram creates hypotheses; it does not prove which cause is responsible. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use,

24. C — Generates ideas freely before judging or selecting them. Separating idea generation from evaluation encourages breadth and reduces premature rejection. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the

25. B — Evaluate a proposed solution on a limited scale before broad deployment. Piloting reveals practical issues and unintended effects while limiting implementation risk. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data

26. C — A method that prevents errors or makes them immediately obvious. Error proofing changes the process so an incorrect action is hard to make or detect. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma

27. A — Documents the best known method so the new process is performed consistently. Without a defined method, gains can erode as people revert to prior practices. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma

28. D — The intended flow after waste and causes have been addressed. It converts improvement concepts into a visible operating design for implementation. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use,

29. D — Forces that support or resist a proposed change. Knowing both types of forces supports a practical change-management plan. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the project

30. C — What to monitor, how to measure it, who acts, and what action to take. A useful plan turns the improved process into an owned operating routine. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six

31. B — A monitored process shows a defined out-of-control or unacceptable condition. It makes corrective action timely and consistent instead of dependent on memory. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data

32. A — Making status, standards, and abnormalities easy to see quickly. Clear visual cues shorten the time between a deviation and an appropriate response. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data

33. A — Ensures people use the current approved process instructions. Uncontrolled versions can reintroduce obsolete methods and variation. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the project conclusion, and

34. D — Distinguish routine common-cause variation from special-cause signals. It provides rules for judging process stability over time. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the project conclusion, and

35. C — Adding all observations and dividing by the number of observations. The mean uses every data value and describes the distribution center when appropriate. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not

meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves

36. B — Skewed or contain extreme values that distort the mean. The middle ordered value is resistant to the influence of unusually large or small observations. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method

37. B — The typical spread of individual values around their mean. A larger standard deviation indicates greater dispersion in the observed process output. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use,

38. C — The maximum value minus the minimum value. Range is a simple dispersion measure, although it is sensitive to extreme observations. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens

39. A — The distribution shape of quantitative data grouped into intervals. It reveals center, spread, skewness, gaps, and possible multiple populations. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the

40. D — Median, quartiles, spread, and potential outlying observations. It compactly compares distributions across groups using robust summary statistics. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the project conclusion,

41. C — Named categories with no inherent order. Examples include department, product type, or defect category. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the project conclusion, and helps the

42. D — Ordered categories whose distances are not necessarily equal. Ratings such as low, medium, and high preserve rank but not equal intervals. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use,

43. B — A plausible range for a population value based on sample data. It expresses estimation uncertainty rather than claiming the sample result is exact. In this situation, that choice directly supports

the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves

44. A — The probability of results at least as extreme if the null hypothesis were true. It is evidence against a specified null model, not the probability that the null is true. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question.

45. B — Rejects a true null hypothesis. This false alarm risk is controlled by the chosen significance level. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the project conclusion, and

46. A — Fails to reject a false null hypothesis. This missed-detection risk is related to statistical power and sample size. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the project

47. D — Rejecting a false null hypothesis. Higher power improves the chance that a meaningful effect will be detected. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the project conclusion,

48. C — Balance unknown influences across treatment conditions. Random assignment supports a fair comparison by reducing systematic confounding. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the project conclusion, and

49. A — The specification width with the natural process spread. C_p measures potential capability and assumes the process is centered. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the project

50. B — Accounts for how centered the process mean is within specifications. A shifted process can have a good C_p but a lower C_{pk} . In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data

51. D — Its natural variation fits within customer specification limits. Capability compares process output with requirements, while control concerns stability. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the

quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the project

52. C — Customer, design, or business requirements. Specifications define acceptable output; they are not calculated from process data. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the project conclusion, and

53. A — The observed process behavior over time. Control limits are statistical signals and must not be confused with specifications. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the project

54. C — Create an orderly, visible, and disciplined workplace. The five practices support safer flow and make abnormalities easier to notice. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the

55. B — Visualize material and information flow across an end-to-end value stream. It reveals delays, inventories, handoffs, and opportunities beyond one local step. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use,

56. D — Actual downstream demand or consumption. Pull limits overproduction by connecting upstream activity to customer need. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the project conclusion, and helps

57. C — Signal replenishment or authorize production in a pull system. A visible signal helps control work and inventory between connected process steps. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use,

58. A — The time required to complete one unit or one process cycle. It is a flow measure that can be compared with demand and improvement targets. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma

59. D — The available production time divided by customer demand. Takt expresses the pace needed to satisfy demand and guides capacity balancing. In this situation, that choice directly supports the team

decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens

60. B — Has the least effective capacity and constrains overall throughput. Improving a non-bottleneck may not improve system output if the constraint remains. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use,

61. C — Can hide delays, quality problems, and uneven flow. Excess WIP often increases lead time and masks the underlying causes of disruption. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use,

62. B — Interested parties, their influence, needs, and engagement approach. Early stakeholder planning reduces resistance and improves access to relevant information. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the

63. A — Specific, measurable, achievable, relevant, and time-bound. These characteristics make a project target concrete enough to manage and evaluate. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the project

64. D — What is included, excluded, and bounded by the project. Explicit scope helps prevent uncontrolled expansion and protects team focus. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the

65. B — Who is responsible, accountable, consulted, and informed. Role clarity reduces delays and confusion during improvement work. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the project conclusion, and

66. A — Displaying planned tasks and their timing on a project schedule. It makes sequencing and progress visible, although it does not prove process causes. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves

67. C — Record project risks, owners, responses, and monitoring actions. Capturing risks early enables the team to prepare rather than react late. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens

68. D — Study multiple factors and possible interactions efficiently. It estimates how factor combinations affect a response rather than changing one factor at a time. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves

69. D — The effect of one factor depends on the level of another factor. Interactions matter because a main-effect conclusion can be misleading when combinations behave differently. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma

70. C — The measured outcome affected by experimental factor settings. The team analyzes this output to judge the effect of deliberate changes. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens

71. B — An input deliberately varied to study its effect on a response. Factors are controlled settings, whereas the response is the observed result. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data

72. A — Estimate experimental error and improve precision. Repeated treatment combinations reveal natural variation and strengthen conclusions about effects. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the project conclusion,

73. A — Account for a known nuisance source of variation. Grouping similar experimental units reduces unwanted noise in treatment comparisons. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the project

74. C — Measurements are collected one at a time rather than in rational subgroups. The chart tracks individual values and a moving range estimate of short-term variation. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma

75. B — Continuous data are collected in small rational subgroups. The X-bar chart monitors subgroup averages while the R chart monitors within-subgroup spread. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use,

76. D — The fraction nonconforming when sample sizes may vary. It is an attribute chart based on proportion defective rather than defect counts. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use,

77. C — The count of defects per constant inspection unit. It applies when opportunities for defects are stable across the observations. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the

78. B — Defects per unit when the inspection opportunity varies. It standardizes defect counts by the varying number of units or opportunities inspected. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use,

79. A — The number nonconforming when the sample size is constant. It is the count-based companion to a p chart for stable sample sizes. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data

80. D — Any failure to meet a specified requirement. One unit may contain more than one defect, which differs from counting defective units. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use,

81. C — A unit with one or more defects. The distinction matters when selecting an attribute measure or chart. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the project conclusion,

82. B — The proportion of units that pass a process without rework. It exposes hidden rework by considering only units that succeed on their initial pass. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method

83. D — The probability that a unit passes all steps without defects. Multiplying step yields highlights how small losses compound across a multi-step process. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the

quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data

84. A — Costs caused by failures, appraisal, and prevention activities. Analyzing these costs helps communicate the business impact of quality problems. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the

85. B — A defect is found before the product or service reaches the customer. Scrap, rework, and retesting are examples of failures detected inside the organization. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method

86. A — A defect is discovered after it reaches the customer. Warranty claims, returns, and complaint handling are external failure consequences. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the

87. C — The documented current performance level before changes are made. It provides a reference for judging whether the project delivered meaningful improvement. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use,

88. D — What data are needed, who collects them, when, and by what method. Planning reduces missing, inconsistent, or unusable data during the Measure phase. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves

89. C — Results must be adjusted to a common basis for fair comparison. Rates per unit, hour, or transaction can reveal differences obscured by unequal exposure. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method

90. B — Takes countable separate values. Counts of defects or customers are discrete, unlike continuously measured time or length. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the project conclusion,

91. D — Can take any value within a measurement interval. Time, mass, and length are examples because increasingly precise measurements are meaningful. In this situation, that choice directly

supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens

92. A — Within-group variation reflects only short-term common causes. Proper subgrouping helps control charts distinguish local variation from changes between subgroups. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the

93. C — Investigating its source before deciding whether exclusion is justified. Removing a value simply because it is unusual can conceal a real special cause. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves

94. B — Understanding concerns and involving affected people in the transition. Participation, communication, and training make adoption more credible and practical. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the

95. A — Audience, message, channel, timing, and owner. Clear planned communication keeps stakeholders informed and supports coordinated implementation. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens the project conclusion, and

96. D — The new standard work, required skills, and evidence of competence. Training must enable consistent execution, not merely announce that a change occurred. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data

97. B — Accurately represents the method, results, limitations, and uncertainty. Selective reporting can create a false improvement story and undermines decision quality. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use, strengthens

98. A — Report the result accurately and help the team understand its implications. Integrity requires transparent reporting even when findings do not support a preferred solution. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method

99. D — A disciplined approach to continuous, incremental improvement. Kaizen encourages people closest to the work to identify and test small practical improvements. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves data use,

100. C — Sustaining the process performance and responding to control-plan signals. The owner ensures that the improved process remains managed after the project team disbands. In this situation, that choice directly supports the team decision. The remaining responses may be routine business activities, but they do not meet the quality-improvement purpose stated in the question. Choosing the right Six Sigma method improves