

# PRACTICE EXAM 19: SIX SIGMA GREEN BELT (100 QUESTIONS)

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This 100-question practice exam covers applied Six Sigma Green Belt concepts throughout DMAIC and organizational foundations. Select the single best answer. For ASQ CSSGB-style timed practice, allow approximately four hours. This independent study guide is not an official certification examination.

1. For a financial-services process, Which item is usually outside a well-written project scope statement?
  - A. The process boundaries being studied
  - B. Major deliverables of the project
  - C. Unrelated processes not affected by the problem
  - D. Key stakeholders impacted by changes
2. A manufacturing team wants to know: Voice of the customer data are used mainly to identify what?
  - A. The order of hypothesis-test steps
  - B. The sequence of control-chart limits
  - C. The value of the process mean
  - D. Customer needs and expectations
3. In a DMAIC gate review, A CTQ characteristic is best described as what?
  - A. A measurable requirement critical to customer satisfaction
  - B. A financial statement prepared by leadership
  - C. A sampling method for process data
  - D. A type of regression coefficient
4. An operations manager asks: Which tool summarizes suppliers, inputs, process, outputs, and customers?
  - A. Scatter diagram
  - B. SIPOC diagram
  - C. Run chart
  - D. Affinity diagram
5. For a customer-facing process, What is the first practical step when forming a Six Sigma project team?
  - A. Calculate Cp before selecting members
  - B. Develop control limits for each member
  - C. Identify needed roles and relevant process knowledge
  - D. Write solutions before defining the problem

6. For a financial-services process, A stakeholder analysis is most useful for which purpose?
- A. Estimating the process sigma level
  - B. Planning engagement and managing project influence
  - C. Choosing a probability distribution
  - D. Computing a confidence interval
7. A manufacturing team wants to know: Which project goal is written most effectively?
- A. Reduce invoice defects from 8% to 3% by June
  - B. Make invoice processing much better soon
  - C. Improve quality wherever possible
  - D. Eliminate every possible source of variation
8. In a DMAIC gate review, What is a likely consequence of poorly defined project boundaries?
- A. More accurate measurement systems
  - B. Automatic customer agreement
  - C. Lower common-cause variation
  - D. Scope creep and unclear accountability
9. An operations manager asks: A RACI matrix is used primarily to clarify what?
- A. Distribution shape and skewness
  - B. The order of customer interviews
  - C. The location of specification limits
  - D. Roles such as responsible and accountable
10. For a customer-facing process, Which team behavior best supports effective brainstorming?
- A. Rank ideas before anyone speaks
  - B. Allow only the project leader to contribute
  - C. Defer judgment while ideas are generated
  - D. Require statistical proof for every suggestion
11. For a financial-services process, What does a Kano analysis help a team understand?
- A. How different features affect customer satisfaction
  - B. How to calculate a t statistic
  - C. How to randomize experimental runs
  - D. How to establish subgroup sizes

12. A manufacturing team wants to know: A process map is most valuable in Define when the team needs to do what?
- A. Set final control limits
  - B. Establish a shared view of the current workflow
  - C. Prove a root cause statistically
  - D. Estimate measurement bias
13. In a DMAIC gate review, Which statement best distinguishes a problem statement from a goal statement?
- A. The problem lists solutions; the goal lists defects
  - B. The problem states the gap; the goal states the target improvement
  - C. The problem is optional; the goal is mandatory
  - D. The problem uses data; the goal must avoid data
14. An operations manager asks: What is a useful output of a voice-of-customer interview?
- A. A final hypothesis-test decision
  - B. A calculated process capability ratio
  - C. A completed failure mode ranking
  - D. Verbatim statements that can be translated into requirements
15. For a customer-facing process, Which action best manages a project risk?
- A. Ignore low-probability events
  - B. Wait until the project closes
  - C. Identify the risk, assess it, and plan a response
  - D. Treat all risks as equal
16. For a financial-services process, A communication plan should specify which element?
- A. Audience, message, method, and timing
  - B. Only the project budget
  - C. Only the measurement equation
  - D. Only the final report format
17. A manufacturing team wants to know: Which technique helps prioritize a large set of customer comments?
- A. Random sampling
  - B. Regression analysis
  - C. Control-charting
  - D. Affinity diagramming

18. In a DMAIC gate review, What is the main value of a high-level process map?
- A. It replaces detailed data collection
  - B. It establishes boundaries and major process steps
  - C. It calculates the defect rate
  - D. It proves causal relationships
19. An operations manager asks: A team uses a nominal group technique mainly to do what?
- A. Generate and prioritize ideas with structured participation
  - B. Estimate a population mean
  - C. Determine gauge repeatability
  - D. Set specification limits
20. For a customer-facing process, Which statement describes a project constraint?
- A. A customer requirement translated to a CTQ
  - B. A common cause of variation
  - C. A limit on resources, time, or authority
  - D. A test statistic used in analysis
21. For a financial-services process, What is the recommended response to a project objective that conflicts with strategy?
- A. Continue because the team has already started
  - B. Hide the conflict from stakeholders
  - C. Collect more data without informing anyone
  - D. Reassess or redirect the project with the sponsor
22. A manufacturing team wants to know: What is an operational definition?
- A. A precise, agreed method for measuring a characteristic
  - B. A broad statement of the project vision
  - C. A financial estimate of benefits
  - D. A list of possible root causes
23. In a DMAIC gate review, Which sampling approach gives every population member an equal chance of selection?
- A. Convenience sampling
  - B. Simple random sampling
  - C. Judgment sampling
  - D. Voluntary-response sampling

24. An operations manager asks: Why is stratification used during data analysis?
- A. To ensure all values are identical
  - B. To remove the need for sampling
  - C. To reveal patterns within meaningful subgroups
  - D. To guarantee causation
25. For a customer-facing process, Which chart is most appropriate for displaying a process sequence with decision points?
- A. Detailed flowchart
  - B. Histogram
  - C. Box plot
  - D. Pareto chart
26. For a financial-services process, What is the purpose of a data collection plan?
- A. Select the final process solution
  - B. Specify what data will be collected and how
  - C. Set a target capability index
  - D. Write the project charter
27. A manufacturing team wants to know: In a measurement system study, repeatability refers to variation from what?
- A. Different appraisers measuring the same item
  - B. Different production shifts using one standard
  - C. The process changing over several months
  - D. The same appraiser measuring the same item repeatedly
28. In a DMAIC gate review, Reproducibility in a gauge study evaluates what?
- A. Variation within one appraiser
  - B. Variation caused by specifications
  - C. Variation among appraisers using the same system
  - D. Variation caused by customer demand
29. An operations manager asks: What does measurement bias indicate?
- A. A consistent difference from a reference value
  - B. Random scatter around the reference value
  - C. A stable process average
  - D. A change in sample size

30. For a customer-facing process, Which display best shows the distribution of continuous data?

- A. Pie chart
- B. Histogram
- C. Gantt chart
- D. SIPOC diagram

31. For a financial-services process, A right-skewed distribution has which characteristic?

- A. A longer tail extending to the left
- B. Equal tails with no spread
- C. A longer tail extending to the right
- D. No observations above the mean

32. A manufacturing team wants to know: What does the median represent?

- A. The most frequent value
- B. The arithmetic average only
- C. The difference between maximum and minimum
- D. The middle value when data are ordered

33. In a DMAIC gate review, Which measure is most sensitive to extreme values?

- A. Arithmetic mean
- B. Median
- C. Mode
- D. Interquartile range

34. An operations manager asks: Standard deviation is a measure of what?

- A. The number of defects per unit
- B. The average process specification
- C. The direction of customer demand
- D. The typical spread of observations around the mean

35. For a customer-facing process, What does a box plot display particularly well?

- A. Sequence of process decisions
- B. Responsibilities by project role
- C. Center, spread, and potential outliers
- D. Supplier and customer relationships

36. For a financial-services process, A Pareto chart is used to help a team do what?
- A. Estimate a regression equation
  - B. Focus on the most significant categories
  - C. Measure appraiser agreement
  - D. Set a project schedule
37. A manufacturing team wants to know: What does a scatter plot help examine?
- A. Association between two variables
  - B. The order of process steps
  - C. The frequency of categorical defects only
  - D. The assignment of team responsibilities
38. In a DMAIC gate review, Which statement about correlation is correct?
- A. Correlation always proves causation
  - B. Correlation alone does not establish causation
  - C. Correlation can be used only with attribute data
  - D. Correlation removes all confounding factors
39. An operations manager asks: A run chart is primarily used to display what?
- A. A ranked list of defect categories
  - B. The relationship between two variables
  - C. Data over time in their observed order
  - D. The parts of a measurement system
40. For a customer-facing process, What is the purpose of a capability study?
- A. Determine individual team roles
  - B. Identify customer segments
  - C. Build an affinity diagram
  - D. Compare process performance with specification limits
41. For a financial-services process, Cp primarily compares which quantities?
- A. Process mean and target value
  - B. Defect count and unit count
  - C. Customer needs and outputs
  - D. Specification width and process spread

42. A manufacturing team wants to know: Cpk differs from Cp because Cpk also considers what?
- A. The number of appraisers
  - B. The sample collection method
  - C. How centered the process is within specifications
  - D. The project budget
43. In a DMAIC gate review, What does a p chart monitor?
- A. The count of defects per unit
  - B. The proportion of defective units
  - C. The process average of continuous data
  - D. The range within rational subgroups
44. An operations manager asks: What does a c chart monitor?
- A. The count of defects when opportunity is constant
  - B. The proportion of defectives in each sample
  - C. Individual measurements over time
  - D. The sample standard deviation
45. For a customer-facing process, Rational subgrouping is intended to separate what?
- A. Customers from suppliers
  - B. Short-term within-subgroup variation from longer-term change
  - C. Goals from problem statements
  - D. Continuous data from attribute data
46. For a financial-services process, Which data type records counts of nonconformities?
- A. Continuous data
  - B. Time-series data only
  - C. Ratio data only
  - D. Attribute data
47. A manufacturing team wants to know: What is a key purpose of a measurement-system analysis before process decisions?
- A. Eliminate all process variation
  - B. Set customer specifications
  - C. Confirm that observed variation can be trusted
  - D. Choose project sponsors

48. In a DMAIC gate review, A stable process is one that shows what?
- A. Only common-cause variation over time
  - B. No variation in any observation
  - C. Only customer-caused variation
  - D. A mean exactly at the target
49. An operations manager asks: Which graph is useful for comparing distributions across categories?
- A. SIPOC diagram
  - B. Tree diagram
  - C. Swimlane map
  - D. Box plot
50. For a customer-facing process, What does the interquartile range measure?
- A. The distance from mean to target
  - B. The count of defects per unit
  - C. The spread of the middle half of the data
  - D. The proportion of observations outside limits
51. For a financial-services process, When collecting baseline data, the team should first ensure what?
- A. The improvement is already implemented
  - B. Definitions and methods are consistent
  - C. All data points meet specification
  - D. The project is ready to close
52. A manufacturing team wants to know: What is the primary purpose of a cause-and-effect diagram?
- A. Organize potential causes of a problem
  - B. Rank defects by frequency
  - C. Test a sample proportion
  - D. Schedule project tasks
53. In a DMAIC gate review, The 5 Whys technique is used to do what?
- A. Probe progressively toward an underlying cause
  - B. Calculate five separate averages
  - C. Create five control limits
  - D. Select five random samples

54. An operations manager asks: What does a hypothesis test evaluate?
- A. Whether a process map is complete
  - B. Whether customer needs are important
  - C. Whether a charter has sufficient scope
  - D. Whether sample evidence supports a stated claim
55. For a customer-facing process, The null hypothesis generally represents what?
- A. The desired project solution
  - B. A baseline or no-effect position to test
  - C. The most likely root cause
  - D. A customer specification
56. For a financial-services process, A Type I error occurs when a team does what?
- A. Fails to reject a false null hypothesis
  - B. Uses a sample that is too large
  - C. Rejects a true null hypothesis
  - D. Calculates the wrong standard deviation
57. A manufacturing team wants to know: A Type II error occurs when a team does what?
- A. Rejects a true null hypothesis
  - B. Uses an incorrect control chart
  - C. Fails to reject a false null hypothesis
  - D. Chooses the wrong project sponsor
58. In a DMAIC gate review, What does a p-value represent in hypothesis testing?
- A. Evidence against the null under the assumed model
  - B. The process capability index
  - C. The probability that the alternative is true
  - D. A guarantee that the result will repeat
59. An operations manager asks: Which analysis is appropriate for comparing means of two independent groups?
- A. Chi-square goodness-of-fit test
  - B. One-proportion test only
  - C. Individual moving-range chart
  - D. Two-sample t test

60. For a customer-facing process, ANOVA is commonly used to compare what?
- A. Two defect counts only
  - B. Means across three or more groups
  - C. One process map with another
  - D. Customer comments by topic
61. For a financial-services process, A chi-square test is often used with what kind of data?
- A. Only normally distributed measurements
  - B. Categorical counts
  - C. Only paired continuous data
  - D. Only time-order observations
62. A manufacturing team wants to know: Regression analysis is used chiefly to model what?
- A. The order of project milestones
  - B. The color coding of a control plan
  - C. A relationship between a response and predictors
  - D. The sequence of brainstorming ideas
63. In a DMAIC gate review, What does a residual plot help assess?
- A. Whether the project charter is approved
  - B. Whether a gauge is calibrated
  - C. Whether a process has customers
  - D. Whether a regression model has problematic patterns
64. An operations manager asks: A confounding variable is one that does what?
- A. Obscures the separate effect of a factor
  - B. Guarantees a statistically significant result
  - C. Always becomes the response variable
  - D. Eliminates the need for randomization
65. For a customer-facing process, What is the purpose of a multi-vari study?
- A. Calculate a single control limit
  - B. Explore variation across sources such as time and location
  - C. Collect voice-of-customer comments
  - D. Build a project communication plan

66. For a financial-services process, Which statement best describes a statistically significant result?
- A. The observed evidence is unlikely under the null model
  - B. The result is automatically important to customers
  - C. The process is necessarily capable
  - D. The root cause is proven without context
67. A manufacturing team wants to know: Why should practical significance be considered with statistical significance?
- A. Statistical tests never use sample data
  - B. Practical significance replaces measurement analysis
  - C. Large p-values prove large business impact
  - D. A small effect can be statistically detectable but unimportant
68. In a DMAIC gate review, What is a key benefit of a designed experiment?
- A. It eliminates all process noise
  - B. It replaces the need for a baseline
  - C. It can estimate factor effects systematically
  - D. It guarantees an optimal solution
69. An operations manager asks: Randomization in an experiment helps protect against what?
- A. The need to define factor levels
  - B. Bias from uncontrolled time-related influences
  - C. Variation caused by measurement systems
  - D. The use of response variables
70. For a customer-facing process, Replication in an experiment provides what?
- A. A way to avoid selecting factors
  - B. A replacement for randomization
  - C. An estimate of experimental error and consistency
  - D. A method for drawing a SIPOC
71. For a financial-services process, Blocking is used in experimental design to do what?
- A. Account for known nuisance variation
  - B. Eliminate the response variable
  - C. Create additional customer segments
  - D. Set final control limits

72. A manufacturing team wants to know: What does an interaction mean in a factorial experiment?

- A. Two factors have identical main effects
- B. All factors must be held constant
- C. The experiment has no random error
- D. The effect of one factor depends on another factor level

73. In a DMAIC gate review, Which tool is best for ranking potential failure risks by severity, occurrence, and detection?

- A. Histogram
- B. Control chart
- C. Scatter diagram
- D. Failure mode and effects analysis

74. An operations manager asks: What is the purpose of a pilot test before full implementation?

- A. Replace all baseline data
- B. Evaluate a proposed change on a limited scale
- C. Finalize project closure immediately
- D. Avoid collecting customer feedback

75. For a customer-facing process, Which technique helps select among alternatives using weighted criteria?

- A. Decision matrix
- B. Run chart
- C. Cause-and-effect diagram
- D. p chart

76. For a financial-services process, Poka-yoke is designed primarily to do what?

- A. Increase inspection sample sizes
- B. Estimate process capability
- C. Prevent or immediately detect errors
- D. Rank stakeholder power

77. A manufacturing team wants to know: Which Lean method organizes the workplace through sort, set in order, shine, standardize, and sustain?

- A. DMAIC
- B. FMEA
- C. 5S
- D. SIPOC

78. In a DMAIC gate review, A kaizen event is best described as what?
- A. A focused, short-term improvement effort
  - B. A long-term audit of financial statements
  - C. A statistical method for comparing means
  - D. A type of control-chart violation
79. An operations manager asks: Value stream mapping helps identify what?
- A. The appropriate alpha level
  - B. The distribution of sample means
  - C. The project sponsor hierarchy
  - D. Value-added and non-value-added process flow
80. For a customer-facing process, Which action most directly reduces changeover time?
- A. Increase work-in-process inventory
  - B. Separate internal and external setup activities
  - C. Add more final inspection steps
  - D. Delay maintenance until failures occur
81. For a financial-services process, What is a primary purpose of standard work?
- A. Define the current best known method consistently
  - B. Allow each operator to choose any sequence
  - C. Replace training with inspection
  - D. Remove the need for improvement
82. A manufacturing team wants to know: Which practice best supports implementation acceptance?
- A. Announce changes only after full deployment
  - B. Involve affected employees in testing and feedback
  - C. Keep process owners out of decisions
  - D. Use only financial metrics to communicate
83. In a DMAIC gate review, A solution has high impact but high implementation effort. What should the team do?
- A. Reject it automatically
  - B. Implement it without pilot testing
  - C. Evaluate tradeoffs and plan resources before scaling
  - D. Ignore stakeholder concerns

84. An operations manager asks: What does a cost-benefit analysis help compare?
- A. Only the number of defects
  - B. Only the process mean
  - C. Only the customer interview count
  - D. Expected gains against required investment
85. For a customer-facing process, Which item is most appropriate in an implementation plan?
- A. Only the final project savings
  - B. Only the control-chart centerline
  - C. Tasks, owners, dates, and required resources
  - D. Only the project problem statement
86. For a financial-services process, A control plan documents what?
- A. How to write the initial charter
  - B. How to conduct a brainstorming session
  - C. How to select experimental factors
  - D. How key process characteristics will be monitored and reacted to
87. A manufacturing team wants to know: The primary purpose of a control chart is to do what?
- A. Show every process step
  - B. Distinguish common-cause from special-cause variation
  - C. Rank customer requirements
  - D. Estimate a project budget
88. In a DMAIC gate review, A point beyond a control limit is most commonly interpreted as what?
- A. A signal of potential special-cause variation
  - B. Proof that specifications were exceeded
  - C. A normal random pattern by definition
  - D. Evidence that the gauge is biased
89. An operations manager asks: Which statement best describes Six Sigma as a business strategy?
- A. A disciplined approach for reducing variation and defects
  - B. A method for ranking employee performance
  - C. A finance-only system for cutting budgets
  - D. A software package for scheduling projects

90. For a customer-facing process, What is the primary purpose of a balanced scorecard?
- A. Calculate a process standard deviation
  - B. Assign causes to a fishbone diagram
  - C. Select a sample from a population
  - D. Translate strategy into a set of linked performance measures
91. For a financial-services process, Which Lean principle most directly emphasizes work that creates customer value?
- A. Increase batch sizes to reduce setups
  - B. Inspect finished output more frequently
  - C. Define value from the customer perspective
  - D. Separate departments by specialty
92. A manufacturing team wants to know: A process operating at a Six Sigma level is chiefly associated with which outcome?
- A. Equal numbers of defects and units
  - B. Very few defects relative to opportunities
  - C. A process average at the specification limit
  - D. No need for process monitoring
93. In a DMAIC gate review, Which role normally sponsors a Six Sigma project and removes organizational barriers?
- A. Project champion
  - B. Process operator
  - C. Data collector
  - D. External customer
94. An operations manager asks: What is a key distinction between a defect and a defective unit?
- A. Every defect always creates two defective units
  - B. Defects apply only to service processes
  - C. Defective units cannot be counted
  - D. A unit may contain more than one defect
95. For a customer-facing process, Which measure is most appropriate for tracking a continuous customer outcome?
- A. Number of returned invoices
  - B. Count of late shipments
  - C. Mean delivery time
  - D. Percent of forms completed

96. For a financial-services process, What does a process owner primarily provide to a Six Sigma team?

- A. A statistically random sample
- B. Independent certification of results
- C. The final exam scoring rule
- D. Authority and knowledge to sustain process changes

97. A manufacturing team wants to know: Which activity is most consistent with a systems view of an organization?

- A. Optimizing one department without regard to others
- B. Assessing interactions among connected processes
- C. Replacing customer needs with internal targets
- D. Treating every defect as an isolated event

98. In a DMAIC gate review, What does the acronym COPQ commonly represent?

- A. Cost of poor quality
- B. Control of process quantity
- C. Customer output performance quotient
- D. Cost of preventive questioning

99. An operations manager asks: Which deployment practice best supports Six Sigma alignment?

- A. Choose projects only because data are easy to obtain
- B. Start every project with a control chart
- C. Link projects to strategic business objectives
- D. Assign projects without defined sponsors

100. For a customer-facing process, What is the primary purpose of a project charter?

- A. Document the final control plan
- B. Define the business case, scope, goals, and team
- C. Calculate process capability indices
- D. List all individual observations

## Practice Exam 19: Answer Key And Explanations

1. C - The correct answer is Unrelated processes not affected by the problem. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.
2. D - The correct answer is Customer needs and expectations. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.
3. A - The correct answer is A measurable requirement critical to customer satisfaction. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.
4. B - The correct answer is SIPOC diagram. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.
5. C - The correct answer is Identify needed roles and relevant process knowledge. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.
6. B - The correct answer is Planning engagement and managing project influence. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.
7. A - The correct answer is Reduce invoice defects from 8% to 3% by June. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.
8. D - The correct answer is Scope creep and unclear accountability. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.
9. D - The correct answer is Roles such as responsible and accountable. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.
10. C - The correct answer is Defer judgment while ideas are generated. It supports the purpose stated in the question and fits the process situation. The remaining choices are

quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

11. A - The correct answer is How different features affect customer satisfaction. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

12. B - The correct answer is Establish a shared view of the current workflow. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

13. B - The correct answer is The problem states the gap; the goal states the target improvement. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

14. D - The correct answer is Verbatim statements that can be translated into requirements. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

15. C - The correct answer is Identify the risk, assess it, and plan a response. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

16. A - The correct answer is Audience, message, method, and timing. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

17. D - The correct answer is Affinity diagramming. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

18. B - The correct answer is It establishes boundaries and major process steps. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

19. A - The correct answer is Generate and prioritize ideas with structured participation. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

20. C - The correct answer is A limit on resources, time, or authority. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

21. D - The correct answer is Reassess or redirect the project with the sponsor. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

22. A - The correct answer is A precise, agreed method for measuring a characteristic. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

23. B - The correct answer is Simple random sampling. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

24. C - The correct answer is To reveal patterns within meaningful subgroups. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

25. A - The correct answer is Detailed flowchart. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

26. B - The correct answer is Specify what data will be collected and how. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

27. D - The correct answer is The same appraiser measuring the same item repeatedly. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

28. C - The correct answer is Variation among appraisers using the same system. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

29. A - The correct answer is A consistent difference from a reference value. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

30. B - The correct answer is Histogram. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.
31. C - The correct answer is A longer tail extending to the right. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.
32. D - The correct answer is The middle value when data are ordered. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.
33. A - The correct answer is Arithmetic mean. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.
34. D - The correct answer is The typical spread of observations around the mean. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.
35. C - The correct answer is Center, spread, and potential outliers. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.
36. B - The correct answer is Focus on the most significant categories. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.
37. A - The correct answer is Association between two variables. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.
38. B - The correct answer is Correlation alone does not establish causation. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.
39. C - The correct answer is Data over time in their observed order. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

40. D - The correct answer is Compare process performance with specification limits. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

41. D - The correct answer is Specification width and process spread. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

42. C - The correct answer is How centered the process is within specifications. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

43. B - The correct answer is The proportion of defective units. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

44. A - The correct answer is The count of defects when opportunity is constant. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

45. B - The correct answer is Short-term within-subgroup variation from longer-term change. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

46. D - The correct answer is Attribute data. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

47. C - The correct answer is Confirm that observed variation can be trusted. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

48. A - The correct answer is Only common-cause variation over time. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

49. D - The correct answer is Box plot. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and

required action. This application is consistent with sound Six Sigma practice.

50. C - The correct answer is The spread of the middle half of the data. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

51. B - The correct answer is Definitions and methods are consistent. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

52. A - The correct answer is Organize potential causes of a problem. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

53. A - The correct answer is Probe progressively toward an underlying cause. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

54. D - The correct answer is Whether sample evidence supports a stated claim. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

55. B - The correct answer is A baseline or no-effect position to test. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

56. C - The correct answer is Rejects a true null hypothesis. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

57. C - The correct answer is Fails to reject a false null hypothesis. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

58. A - The correct answer is Evidence against the null under the assumed model. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

59. D - The correct answer is Two-sample t test. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere,

but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

60. B - The correct answer is Means across three or more groups. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

61. B - The correct answer is Categorical counts. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

62. C - The correct answer is A relationship between a response and predictors. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

63. D - The correct answer is Whether a regression model has problematic patterns. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

64. A - The correct answer is Obscures the separate effect of a factor. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

65. B - The correct answer is Explore variation across sources such as time and location. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

66. A - The correct answer is The observed evidence is unlikely under the null model. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

67. D - The correct answer is A small effect can be statistically detectable but unimportant. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

68. C - The correct answer is It can estimate factor effects systematically. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

69. B - The correct answer is Bias from uncontrolled time-related influences. It supports the purpose stated in the question and fits the process situation. The remaining choices are

quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

70. C - The correct answer is An estimate of experimental error and consistency. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

71. A - The correct answer is Account for known nuisance variation. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

72. D - The correct answer is The effect of one factor depends on another factor level. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

73. D - The correct answer is Failure mode and effects analysis. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

74. B - The correct answer is Evaluate a proposed change on a limited scale. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

75. A - The correct answer is Decision matrix. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

76. C - The correct answer is Prevent or immediately detect errors. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

77. C - The correct answer is 5S. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

78. A - The correct answer is A focused, short-term improvement effort. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

79. D - The correct answer is Value-added and non-value-added process flow. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

80. B - The correct answer is Separate internal and external setup activities. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

81. A - The correct answer is Define the current best known method consistently. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

82. B - The correct answer is Involve affected employees in testing and feedback. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

83. C - The correct answer is Evaluate tradeoffs and plan resources before scaling. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

84. D - The correct answer is Expected gains against required investment. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

85. C - The correct answer is Tasks, owners, dates, and required resources. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

86. D - The correct answer is How key process characteristics will be monitored and reacted to. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

87. B - The correct answer is Distinguish common-cause from special-cause variation. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

88. A - The correct answer is A signal of potential special-cause variation. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method

that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

89. A - The correct answer is A disciplined approach for reducing variation and defects. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

90. D - The correct answer is Translate strategy into a set of linked performance measures. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

91. C - The correct answer is Define value from the customer perspective. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

92. B - The correct answer is Very few defects relative to opportunities. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

93. A - The correct answer is Project champion. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

94. D - The correct answer is A unit may contain more than one defect. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

95. C - The correct answer is Mean delivery time. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

96. D - The correct answer is Authority and knowledge to sustain process changes. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.

97. B - The correct answer is Assessing interactions among connected processes. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

98. A - The correct answer is Cost of poor quality. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

99. C - The correct answer is Link projects to strategic business objectives. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action. This application is consistent with sound Six Sigma practice.

100. B - The correct answer is Define the business case, scope, goals, and team. It supports the purpose stated in the question and fits the process situation. The remaining choices are quality concepts useful elsewhere, but they do not address this decision. Select the method that matches the evidence, objective, and required action.