

PRACTICE EXAM 26: CERTIFIED SIX SIGMA GREEN BELT (100 QUESTIONS)

This 100-question practice exam is aligned to Six Sigma Green Belt concepts and DMAIC. ASQ's current CSSGB computer-delivered examination contains 110 questions and allows 4 hours and 18 minutes. Select the one best answer for each question.

1. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to state the business case, problem, goal, scope, and team roles?
 - A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Conduct a pilot test before defining the measurement and analysis approach for the team
 - C. Use an FMEA only after the process has failed during normal operation
 - D. Use project charter to state the business case, problem, goal, scope, and team roles.
2. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to translate customer needs into measurable requirements?
 - A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Use voice of the customer to translate customer needs into measurable requirements.
 - C. Conduct a pilot test before defining the measurement and analysis approach for the team
 - D. Use an FMEA only after the process has failed during normal operation
3. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to identify the measurable requirement most important to customers?
 - A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Conduct a pilot test before defining the measurement and analysis approach for the team
 - C. Use critical-to-quality characteristic to identify the measurable requirement most important to customers.
 - D. Use an FMEA only after the process has failed during normal operation
4. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to define suppliers, inputs, process, outputs, and customers at a high level?
 - A. Use SIPOC map to define suppliers, inputs, process, outputs, and customers at a high level.
 - B. Apply a control chart to monitor stability after the process is fully implemented
 - C. Conduct a pilot test before defining the measurement and analysis approach for the team
 - D. Use an FMEA only after the process has failed during normal operation
5. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to assign accountability for sustaining the improved process?
 - A. Use process owner to assign accountability for sustaining the improved process.
 - B. Apply a control chart to monitor stability after the process is fully implemented
 - C. Conduct a pilot test before defining the measurement and analysis approach for the team

- D. Use an FMEA only after the process has failed during normal operation
- 6.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to identify interested parties and plan engagement for the project.?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Conduct a pilot test before defining the measurement and analysis approach for the team
 - C. Use stakeholder analysis to identify interested parties and plan engagement for the project.
 - D. Use an FMEA only after the process has failed during normal operation
- 7.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to set clear process boundaries and exclusions for the improvement effort.?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Use project scope to set clear process boundaries and exclusions for the improvement effort.
 - C. Conduct a pilot test before defining the measurement and analysis approach for the team
 - D. Use an FMEA only after the process has failed during normal operation
- 8.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to quantify the expected cost, revenue, or risk impact of the project.?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Conduct a pilot test before defining the measurement and analysis approach for the team
 - C. Use an FMEA only after the process has failed during normal operation
 - D. Use financial benefit estimate to quantify the expected cost, revenue, or risk impact of the project.
- 9.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to write a specific, measurable, attainable, relevant, time-bound target.?
- A. Use SMART goal to write a specific, measurable, attainable, relevant, time-bound target.
 - B. Apply a control chart to monitor stability after the process is fully implemented
 - C. Conduct a pilot test before defining the measurement and analysis approach for the team
 - D. Use an FMEA only after the process has failed during normal operation
- 10.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to clarify roles, authority, norms, and decision-making expectations.?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Conduct a pilot test before defining the measurement and analysis approach for the team
 - C. Use an FMEA only after the process has failed during normal operation
 - D. Use team charter to clarify roles, authority, norms, and decision-making expectations.
- 11.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to organize many ideas into natural themes before prioritizing them.?
- A. Apply a control chart to monitor stability after the process is fully implemented

- B. Use affinity diagram to organize many ideas into natural themes before prioritizing them.
 - C. Conduct a pilot test before defining the measurement and analysis approach for the team
 - D. Use an FMEA only after the process has failed during normal operation
- 12.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to classify customer needs by their effect on satisfaction.?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Conduct a pilot test before defining the measurement and analysis approach for the team
 - C. Use Kano analysis to classify customer needs by their effect on satisfaction.
 - D. Use an FMEA only after the process has failed during normal operation
- 13.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to link customer needs to technical design requirements.?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Conduct a pilot test before defining the measurement and analysis approach for the team
 - C. Use an FMEA only after the process has failed during normal operation
 - D. Use quality function deployment to link customer needs to technical design requirements.
- 14.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to separate customer-value work from required and unnecessary work.?
- A. Use value-added analysis to separate customer-value work from required and unnecessary work.
 - B. Apply a control chart to monitor stability after the process is fully implemented
 - C. Conduct a pilot test before defining the measurement and analysis approach for the team
 - D. Use an FMEA only after the process has failed during normal operation
- 15.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to show the current sequence of activities and decision points.?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Use process map to show the current sequence of activities and decision points.
 - C. Conduct a pilot test before defining the measurement and analysis approach for the team
 - D. Use an FMEA only after the process has failed during normal operation
- 16.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to specify exactly how a characteristic will be measured and recorded.?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Conduct a pilot test before defining the measurement and analysis approach for the team
 - C. Use operational definition to specify exactly how a characteristic will be measured and recorded.
 - D. Use an FMEA only after the process has failed during normal operation

- 17.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to define what data, who collects it, when, where, and how.?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Conduct a pilot test before defining the measurement and analysis approach for the team
 - C. Use data collection plan to define what data, who collects it, when, where, and how.
 - D. Use an FMEA only after the process has failed during normal operation
- 18.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to select observations that represent the process without unnecessary effort.?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Use sampling plan to select observations that represent the process without unnecessary effort.
 - C. Conduct a pilot test before defining the measurement and analysis approach for the team
 - D. Use an FMEA only after the process has failed during normal operation
- 19.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to evaluate whether measurement variation is acceptable for its use.?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Conduct a pilot test before defining the measurement and analysis approach for the team
 - C. Use an FMEA only after the process has failed during normal operation
 - D. Use measurement system analysis to evaluate whether measurement variation is acceptable for its use.
- 20.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to assess variation when the same appraiser measures the same item repeatedly.?
- A. Use repeatability to assess variation when the same appraiser measures the same item repeatedly.
 - B. Apply a control chart to monitor stability after the process is fully implemented
 - C. Conduct a pilot test before defining the measurement and analysis approach for the team
 - D. Use an FMEA only after the process has failed during normal operation
- 21.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to assess variation attributable to different appraisers using one method.?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Use reproducibility to assess variation attributable to different appraisers using one method.
 - C. Conduct a pilot test before defining the measurement and analysis approach for the team
 - D. Use an FMEA only after the process has failed during normal operation
- 22.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to compare an instrument against a traceable reference and adjust if needed.?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Conduct a pilot test before defining the measurement and analysis approach for the team

- C. Use an FMEA only after the process has failed during normal operation
- D. Use calibration to compare an instrument against a traceable reference and adjust if needed.
- 23.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to determine the consistent difference between observed and reference values.?
- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Conduct a pilot test before defining the measurement and analysis approach for the team
- C. Use bias study to determine the consistent difference between observed and reference values.
- D. Use an FMEA only after the process has failed during normal operation
- 24.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to determine whether measurement bias changes across the operating range.?
- A. Use linearity study to determine whether measurement bias changes across the operating range.
- B. Apply a control chart to monitor stability after the process is fully implemented
- C. Conduct a pilot test before defining the measurement and analysis approach for the team
- D. Use an FMEA only after the process has failed during normal operation
- 25.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to determine whether a measurement system remains consistent over time.?
- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Use stability study to determine whether a measurement system remains consistent over time.
- C. Conduct a pilot test before defining the measurement and analysis approach for the team
- D. Use an FMEA only after the process has failed during normal operation
- 26.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to display the distribution, center, spread, and shape of continuous data.?
- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Conduct a pilot test before defining the measurement and analysis approach for the team
- C. Use histogram to display the distribution, center, spread, and shape of continuous data.
- D. Use an FMEA only after the process has failed during normal operation
- 27.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to compare medians, spread, and possible outliers across groups.?
- A. Use boxplot to compare medians, spread, and possible outliers across groups.
- B. Apply a control chart to monitor stability after the process is fully implemented
- C. Conduct a pilot test before defining the measurement and analysis approach for the team
- D. Use an FMEA only after the process has failed during normal operation
- 28.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to display data in time order to reveal shifts or nonrandom patterns.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Conduct a pilot test before defining the measurement and analysis approach for the team
- C. Use an FMEA only after the process has failed during normal operation
- D. Use run chart to display data in time order to reveal shifts or nonrandom patterns.

29. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to prioritize categories by frequency or impact using descending bars.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Use Pareto chart to prioritize categories by frequency or impact using descending bars.
- C. Conduct a pilot test before defining the measurement and analysis approach for the team
- D. Use an FMEA only after the process has failed during normal operation

30. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to explore the relationship between two quantitative variables.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Conduct a pilot test before defining the measurement and analysis approach for the team
- C. Use scatter plot to explore the relationship between two quantitative variables.
- D. Use an FMEA only after the process has failed during normal operation

31. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to separate combined data into meaningful subgroups before drawing conclusions.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Conduct a pilot test before defining the measurement and analysis approach for the team
- C. Use an FMEA only after the process has failed during normal operation
- D. Use stratification to separate combined data into meaningful subgroups before drawing conclusions.

32. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to collect consistently coded counts at the point of occurrence.?

- A. Use check sheet to collect consistently coded counts at the point of occurrence.
- B. Apply a control chart to monitor stability after the process is fully implemented
- C. Conduct a pilot test before defining the measurement and analysis approach for the team
- D. Use an FMEA only after the process has failed during normal operation

33. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to compare stable process performance with specification limits.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Use process capability to compare stable process performance with specification limits.
- C. Conduct a pilot test before defining the measurement and analysis approach for the team
- D. Use an FMEA only after the process has failed during normal operation

34. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to assess potential capability using process spread and specification width.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Conduct a pilot test before defining the measurement and analysis approach for the team
- C. Use Cp index to assess potential capability using process spread and specification width.
- D. Use an FMEA only after the process has failed during normal operation

35. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to assess actual capability after considering process centering.?

- A. Use Cpk index to assess actual capability after considering process centering.
- B. Apply a control chart to monitor stability after the process is fully implemented
- C. Conduct a pilot test before defining the measurement and analysis approach for the team
- D. Use an FMEA only after the process has failed during normal operation

36. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to express defect opportunities relative to the number of units inspected.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Conduct a pilot test before defining the measurement and analysis approach for the team
- C. Use an FMEA only after the process has failed during normal operation
- D. Use defects per unit to express defect opportunities relative to the number of units inspected.

37. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to measure the proportion completing a process correctly without rework.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Use first-pass yield to measure the proportion completing a process correctly without rework.
- C. Conduct a pilot test before defining the measurement and analysis approach for the team
- D. Use an FMEA only after the process has failed during normal operation

38. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to estimate the probability a unit passes every step without defects.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Conduct a pilot test before defining the measurement and analysis approach for the team
- C. Use an FMEA only after the process has failed during normal operation
- D. Use rolled throughput yield to estimate the probability a unit passes every step without defects.

39. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to explain why sample means tend toward a normal distribution as sample size grows.?

- A. Apply a control chart to monitor stability after the process is fully implemented

- B. Conduct a pilot test before defining the measurement and analysis approach for the team
 - C. Use central limit theorem to explain why sample means tend toward a normal distribution as sample size grows.
 - D. Use an FMEA only after the process has failed during normal operation
- 40.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to estimate a plausible range for an unknown population parameter.?
- A. Use confidence interval to estimate a plausible range for an unknown population parameter.
 - B. Apply a control chart to monitor stability after the process is fully implemented
 - C. Conduct a pilot test before defining the measurement and analysis approach for the team
 - D. Use an FMEA only after the process has failed during normal operation
- 41.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to state the default claim tested for evidence of a difference or effect.?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Use null hypothesis to state the default claim tested for evidence of a difference or effect.
 - C. Conduct a pilot test before defining the measurement and analysis approach for the team
 - D. Use an FMEA only after the process has failed during normal operation
- 42.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to quantify how surprising observed data would be if the null hypothesis were true.?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Conduct a pilot test before defining the measurement and analysis approach for the team
 - C. Use p-value to quantify how surprising observed data would be if the null hypothesis were true.
 - D. Use an FMEA only after the process has failed during normal operation
- 43.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to recognize the risk of rejecting a true null hypothesis.?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Conduct a pilot test before defining the measurement and analysis approach for the team
 - C. Use an FMEA only after the process has failed during normal operation
 - D. Use Type I error to recognize the risk of rejecting a true null hypothesis.
- 44.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to recognize the risk of failing to reject a false null hypothesis.?
- A. Use Type II error to recognize the risk of failing to reject a false null hypothesis.
 - B. Apply a control chart to monitor stability after the process is fully implemented
 - C. Conduct a pilot test before defining the measurement and analysis approach for the team
 - D. Use an FMEA only after the process has failed during normal operation

- 45.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to judge whether a statistically detectable difference matters operationally.?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Use practical significance to judge whether a statistically detectable difference matters operationally.
 - C. Conduct a pilot test before defining the measurement and analysis approach for the team
 - D. Use an FMEA only after the process has failed during normal operation
- 46.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to measure the direction and strength of a linear association.?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Conduct a pilot test before defining the measurement and analysis approach for the team
 - C. Use an FMEA only after the process has failed during normal operation
 - D. Use correlation to measure the direction and strength of a linear association.
- 47.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to model the expected response as predictors change.?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Conduct a pilot test before defining the measurement and analysis approach for the team
 - C. Use regression to model the expected response as predictors change.
 - D. Use an FMEA only after the process has failed during normal operation
- 48.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to assess whether observed data reasonably follow a normal distribution.?
- A. Use normal probability plot to assess whether observed data reasonably follow a normal distribution.
 - B. Apply a control chart to monitor stability after the process is fully implemented
 - C. Conduct a pilot test before defining the measurement and analysis approach for the team
 - D. Use an FMEA only after the process has failed during normal operation
- 49.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to compare groups when assumptions for a parametric test are not reasonable.?
- A. Use nonparametric test to compare groups when assumptions for a parametric test are not reasonable.
 - B. Apply a control chart to monitor stability after the process is fully implemented
 - C. Conduct a pilot test before defining the measurement and analysis approach for the team
 - D. Use an FMEA only after the process has failed during normal operation
- 50.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to organize possible causes into categories for structured investigation.?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Use fishbone diagram to organize possible causes into categories for structured investigation.

- C. Conduct a pilot test before defining the measurement and analysis approach for the team
- D. Use an FMEA only after the process has failed during normal operation

51. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to probe successive causal links to reach a controllable root cause.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Conduct a pilot test before defining the measurement and analysis approach for the team
- C. Use an FMEA only after the process has failed during normal operation
- D. Use 5 Whys to probe successive causal links to reach a controllable root cause.

52. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to rank input variables by their relationship to customer requirements.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Conduct a pilot test before defining the measurement and analysis approach for the team
- C. Use cause-and-effect matrix to rank input variables by their relationship to customer requirements.
- D. Use an FMEA only after the process has failed during normal operation

53. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to anticipate failure modes, effects, causes, and controls before release.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Use failure mode and effects analysis to anticipate failure modes, effects, causes, and controls before release.
- C. Conduct a pilot test before defining the measurement and analysis approach for the team
- D. Use an FMEA only after the process has failed during normal operation

54. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to prioritize fmea actions using severity, occurrence, and detection ratings.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Conduct a pilot test before defining the measurement and analysis approach for the team
- C. Use an FMEA only after the process has failed during normal operation
- D. Use risk priority number to prioritize fmea actions using severity, occurrence, and detection ratings.

55. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to separate variation by positional, cyclical, and temporal sources.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Conduct a pilot test before defining the measurement and analysis approach for the team
- C. Use multi-vari study to separate variation by positional, cyclical, and temporal sources.
- D. Use an FMEA only after the process has failed during normal operation

56. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to test whether a population mean differs from a stated or comparison value.?

- A. Use hypothesis test for means to test whether a population mean differs from a stated or comparison value.
- B. Apply a control chart to monitor stability after the process is fully implemented
- C. Conduct a pilot test before defining the measurement and analysis approach for the team
- D. Use an FMEA only after the process has failed during normal operation

57. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to test whether a population proportion differs from a stated or comparison value.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Conduct a pilot test before defining the measurement and analysis approach for the team
- C. Use an FMEA only after the process has failed during normal operation
- D. Use hypothesis test for proportions to test whether a population proportion differs from a stated or comparison value.

58. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to test association between categorical variables or fit to expected counts.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Conduct a pilot test before defining the measurement and analysis approach for the team
- C. Use chi-square test to test association between categorical variables or fit to expected counts.
- D. Use an FMEA only after the process has failed during normal operation

59. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to compare means across three or more independent groups.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Use one-way ANOVA to compare means across three or more independent groups.
- C. Conduct a pilot test before defining the measurement and analysis approach for the team
- D. Use an FMEA only after the process has failed during normal operation

60. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to compare two related measurements taken from the same units.?

- A. Use paired t-test to compare two related measurements taken from the same units.
- B. Apply a control chart to monitor stability after the process is fully implemented
- C. Conduct a pilot test before defining the measurement and analysis approach for the team
- D. Use an FMEA only after the process has failed during normal operation

61. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to estimate the chance a study detects a meaningful effect when it exists.?

- A. Use power analysis to estimate the chance a study detects a meaningful effect when it exists.
- B. Apply a control chart to monitor stability after the process is fully implemented
- C. Conduct a pilot test before defining the measurement and analysis approach for the team

- D. Use an FMEA only after the process has failed during normal operation
- 62.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to confirm a suspected cause with data before selecting solutions.?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Conduct a pilot test before defining the measurement and analysis approach for the team
 - C. Use an FMEA only after the process has failed during normal operation
 - D. Use root-cause verification to confirm a suspected cause with data before selecting solutions.
- 63.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to generate many possible solutions before evaluating or selecting them.?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Conduct a pilot test before defining the measurement and analysis approach for the team
 - C. Use brainstorming to generate many possible solutions before evaluating or selecting them.
 - D. Use an FMEA only after the process has failed during normal operation
- 64.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to compare solution alternatives against weighted selection criteria.?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Use Pugh matrix to compare solution alternatives against weighted selection criteria.
 - C. Conduct a pilot test before defining the measurement and analysis approach for the team
 - D. Use an FMEA only after the process has failed during normal operation
- 65.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to try a proposed change on a limited scale before full implementation.?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Conduct a pilot test before defining the measurement and analysis approach for the team
 - C. Use pilot test to try a proposed change on a limited scale before full implementation.
 - D. Use an FMEA only after the process has failed during normal operation
- 66.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to study factor effects and interactions through planned experimental changes.?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Use DOE to study factor effects and interactions through planned experimental changes.
 - C. Conduct a pilot test before defining the measurement and analysis approach for the team
 - D. Use an FMEA only after the process has failed during normal operation
- 67.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to identify an input deliberately changed during an experiment.?
- A. Apply a control chart to monitor stability after the process is fully implemented

- B. Conduct a pilot test before defining the measurement and analysis approach for the team
- C. Use an FMEA only after the process has failed during normal operation
- D. Use factor to identify an input deliberately changed during an experiment.

68. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to identify the measured outcome used to judge experimental results.?

- A. Use response to identify the measured outcome used to judge experimental results.
- B. Apply a control chart to monitor stability after the process is fully implemented
- C. Conduct a pilot test before defining the measurement and analysis approach for the team
- D. Use an FMEA only after the process has failed during normal operation

69. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to reduce bias by assigning experimental runs in an unpredictable order.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Use randomization to reduce bias by assigning experimental runs in an unpredictable order.
- C. Conduct a pilot test before defining the measurement and analysis approach for the team
- D. Use an FMEA only after the process has failed during normal operation

70. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to estimate experimental error by repeating treatments independently.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Conduct a pilot test before defining the measurement and analysis approach for the team
- C. Use an FMEA only after the process has failed during normal operation
- D. Use replication to estimate experimental error by repeating treatments independently.

71. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to reduce nuisance variation by grouping similar experimental units.?

- A. Use blocking to reduce nuisance variation by grouping similar experimental units.
- B. Apply a control chart to monitor stability after the process is fully implemented
- C. Conduct a pilot test before defining the measurement and analysis approach for the team
- D. Use an FMEA only after the process has failed during normal operation

72. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to recognize when one factor's effect depends on another factor level.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Conduct a pilot test before defining the measurement and analysis approach for the team
- C. Use interaction to recognize when one factor's effect depends on another factor level.
- D. Use an FMEA only after the process has failed during normal operation

- 73.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to estimate the average change in response from changing one factor.?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Conduct a pilot test before defining the measurement and analysis approach for the team
 - C. Use main effect to estimate the average change in response from changing one factor.
 - D. Use an FMEA only after the process has failed during normal operation
- 74.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to document how key inputs and outputs will be monitored and reacted to.?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Use control plan to document how key inputs and outputs will be monitored and reacted to.
 - C. Conduct a pilot test before defining the measurement and analysis approach for the team
 - D. Use an FMEA only after the process has failed during normal operation
- 75.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to define the current best method so work is performed consistently.?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Conduct a pilot test before defining the measurement and analysis approach for the team
 - C. Use an FMEA only after the process has failed during normal operation
 - D. Use standard work to define the current best method so work is performed consistently.
- 76.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to prevent an error or make an error immediately obvious at its source.?
- A. Use poka-yoke to prevent an error or make an error immediately obvious at its source.
 - B. Apply a control chart to monitor stability after the process is fully implemented
 - C. Conduct a pilot test before defining the measurement and analysis approach for the team
 - D. Use an FMEA only after the process has failed during normal operation
- 77.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to make process status, standards, and abnormalities easy to see.?
- A. Use visual management to make process status, standards, and abnormalities easy to see.
 - B. Apply a control chart to monitor stability after the process is fully implemented
 - C. Conduct a pilot test before defining the measurement and analysis approach for the team
 - D. Use an FMEA only after the process has failed during normal operation
- 78.** A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to distinguish common-cause variation from special-cause signals over time.?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Conduct a pilot test before defining the measurement and analysis approach for the team

- C. Use an FMEA only after the process has failed during normal operation
- D. Use control chart to distinguish common-cause variation from special-cause signals over time.

79. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to recognize routine variation inherent in a stable process system.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Conduct a pilot test before defining the measurement and analysis approach for the team
- C. Use common-cause variation to recognize routine variation inherent in a stable process system.
- D. Use an FMEA only after the process has failed during normal operation

80. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to recognize a signal caused by a specific, nonroutine influence.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Use special-cause variation to recognize a signal caused by a specific, nonroutine influence.
- C. Conduct a pilot test before defining the measurement and analysis approach for the team
- D. Use an FMEA only after the process has failed during normal operation

81. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to monitor a continuous measure when observations are collected one at a time.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Conduct a pilot test before defining the measurement and analysis approach for the team
- C. Use individuals chart to monitor a continuous measure when observations are collected one at a time.
- D. Use an FMEA only after the process has failed during normal operation

82. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to monitor subgroup averages and ranges for a continuous characteristic.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Conduct a pilot test before defining the measurement and analysis approach for the team
- C. Use an FMEA only after the process has failed during normal operation
- D. Use Xbar-R chart to monitor subgroup averages and ranges for a continuous characteristic.

83. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to monitor the proportion nonconforming when sample sizes may differ.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Use p chart to monitor the proportion nonconforming when sample sizes may differ.
- C. Conduct a pilot test before defining the measurement and analysis approach for the team
- D. Use an FMEA only after the process has failed during normal operation

84. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to monitor defects per unit when inspection opportunity varies.?

- A. Use u chart to monitor defects per unit when inspection opportunity varies.
- B. Apply a control chart to monitor stability after the process is fully implemented
- C. Conduct a pilot test before defining the measurement and analysis approach for the team
- D. Use an FMEA only after the process has failed during normal operation

85. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to specify who does what when a control signal or limit violation occurs.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Conduct a pilot test before defining the measurement and analysis approach for the team
- C. Use an FMEA only after the process has failed during normal operation
- D. Use reaction plan to specify who does what when a control signal or limit violation occurs.

86. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to set statistically calculated boundaries representing expected process variation.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Conduct a pilot test before defining the measurement and analysis approach for the team
- C. Use control limits to set statistically calculated boundaries representing expected process variation.
- D. Use an FMEA only after the process has failed during normal operation

87. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to state customer or design requirements for acceptable output.?

- A. Use specification limits to state customer or design requirements for acceptable output.
- B. Apply a control chart to monitor stability after the process is fully implemented
- C. Conduct a pilot test before defining the measurement and analysis approach for the team
- D. Use an FMEA only after the process has failed during normal operation

88. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to verify that documented controls and standard work are being followed.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Use auditing to verify that documented controls and standard work are being followed.
- C. Conduct a pilot test before defining the measurement and analysis approach for the team
- D. Use an FMEA only after the process has failed during normal operation

89. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to transfer ownership, training, measures, and responsibilities after project closure.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Conduct a pilot test before defining the measurement and analysis approach for the team
- C. Use an FMEA only after the process has failed during normal operation
- D. Use handoff plan to transfer ownership, training, measures, and responsibilities after project closure.

90. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to capture reusable knowledge about methods, risks, and project decisions.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Use lessons learned to capture reusable knowledge about methods, risks, and project decisions.
- C. Conduct a pilot test before defining the measurement and analysis approach for the team
- D. Use an FMEA only after the process has failed during normal operation

91. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to use define, measure, analyze, improve, and control for improving an existing process.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Conduct a pilot test before defining the measurement and analysis approach for the team
- C. Use DMAIC to use define, measure, analyze, improve, and control for improving an existing process.
- D. Use an FMEA only after the process has failed during normal operation

92. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to identify non-value-added effort such as waiting, rework, or excess movement.?

- A. Use Lean waste to identify non-value-added effort such as waiting, rework, or excess movement.
- B. Apply a control chart to monitor stability after the process is fully implemented
- C. Conduct a pilot test before defining the measurement and analysis approach for the team
- D. Use an FMEA only after the process has failed during normal operation

93. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to organize and sustain an orderly workplace that supports reliable work.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Conduct a pilot test before defining the measurement and analysis approach for the team
- C. Use 5S to organize and sustain an orderly workplace that supports reliable work.
- D. Use an FMEA only after the process has failed during normal operation

94. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to signal replenishment based on downstream consumption and agreed limits.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Use Kanban to signal replenishment based on downstream consumption and agreed limits.
- C. Conduct a pilot test before defining the measurement and analysis approach for the team
- D. Use an FMEA only after the process has failed during normal operation

95. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to measure elapsed time required to complete one unit of work.?

- A. Use cycle time to measure elapsed time required to complete one unit of work.

- B. Apply a control chart to monitor stability after the process is fully implemented
- C. Conduct a pilot test before defining the measurement and analysis approach for the team
- D. Use an FMEA only after the process has failed during normal operation

96. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to set the production pace needed to meet customer demand.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Conduct a pilot test before defining the measurement and analysis approach for the team
- C. Use an FMEA only after the process has failed during normal operation
- D. Use takt time to set the production pace needed to meet customer demand.

97. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to constrain in-process inventory to expose flow problems and prevent overload.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Use work-in-process limit to constrain in-process inventory to expose flow problems and prevent overload.
- C. Conduct a pilot test before defining the measurement and analysis approach for the team
- D. Use an FMEA only after the process has failed during normal operation

98. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to map material and information flow to identify delays and improvement opportunities.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Conduct a pilot test before defining the measurement and analysis approach for the team
- C. Use an FMEA only after the process has failed during normal operation
- D. Use value stream map to map material and information flow to identify delays and improvement opportunities.

99. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to plan communication, sponsorship, training, and adoption for a process change.?

- A. Use change management to plan communication, sponsorship, training, and adoption for a process change.
- B. Apply a control chart to monitor stability after the process is fully implemented
- C. Conduct a pilot test before defining the measurement and analysis approach for the team
- D. Use an FMEA only after the process has failed during normal operation

100. A Green Belt team is reviewing a process-improvement scenario. Which method should it use when the immediate objective is to document and deploy a proven method so the improved process can be repeated.?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Conduct a pilot test before defining the measurement and analysis approach for the team
- C. Use standardization to document and deploy a proven method so the improved process can be repeated.
- D. Use an FMEA only after the process has failed during normal operation

PRACTICE EXAM 26: ANSWER KEY AND EXPLANATIONS

- 1. D** - The correct response is project charter. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 2. B** - The correct response is voice of the customer. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 3. C** - The correct response is critical-to-quality characteristic. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 4. A** - The correct response is SIPOC map. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 5. A** - The correct response is process owner. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 6. C** - The correct response is stakeholder analysis. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 7. B** - The correct response is project scope. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 8. D** - The correct response is financial benefit estimate. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 9. A** - The correct response is SMART goal. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 10. D** - The correct response is team charter. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 11. B** - The correct response is affinity diagram. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 12. C** - The correct response is Kano analysis. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

process.

13. D - The correct response is quality function deployment. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

14. A - The correct response is value-added analysis. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

15. B - The correct response is process map. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

16. C - The correct response is operational definition. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

17. C - The correct response is data collection plan. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

18. B - The correct response is sampling plan. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

19. D - The correct response is measurement system analysis. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

20. A - The correct response is repeatability. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

21. B - The correct response is reproducibility. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

22. D - The correct response is calibration. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

23. C - The correct response is bias study. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

24. A - The correct response is linearity study. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

process.

25. B - The correct response is stability study. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

26. C - The correct response is histogram. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

27. A - The correct response is boxplot. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

28. D - The correct response is run chart. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

29. B - The correct response is Pareto chart. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

30. C - The correct response is scatter plot. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

31. D - The correct response is stratification. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

32. A - The correct response is check sheet. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

33. B - The correct response is process capability. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

34. C - The correct response is Cp index. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

35. A - The correct response is Cpk index. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

36. D - The correct response is defects per unit. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

37. B - The correct response is first-pass yield. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

38. D - The correct response is rolled throughput yield. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

39. C - The correct response is central limit theorem. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

40. A - The correct response is confidence interval. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

41. B - The correct response is null hypothesis. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

42. C - The correct response is p-value. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

43. D - The correct response is Type I error. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

44. A - The correct response is Type II error. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

45. B - The correct response is practical significance. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

46. D - The correct response is correlation. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

47. C - The correct response is regression. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

48. A - The correct response is normal probability plot. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

49. A - The correct response is nonparametric test. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

50. B - The correct response is fishbone diagram. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

51. D - The correct response is 5 Whys. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

52. C - The correct response is cause-and-effect matrix. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

53. B - The correct response is failure mode and effects analysis. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

54. D - The correct response is risk priority number. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

55. C - The correct response is multi-vari study. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

56. A - The correct response is hypothesis test for means. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

57. D - The correct response is hypothesis test for proportions. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

58. C - The correct response is chi-square test. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

59. B - The correct response is one-way ANOVA. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

60. A - The correct response is paired t-test. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

- 61. A** - The correct response is power analysis. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 62. D** - The correct response is root-cause verification. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 63. C** - The correct response is brainstorming. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 64. B** - The correct response is Pugh matrix. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 65. C** - The correct response is pilot test. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 66. B** - The correct response is DOE. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 67. D** - The correct response is factor. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 68. A** - The correct response is response. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 69. B** - The correct response is randomization. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 70. D** - The correct response is replication. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 71. A** - The correct response is blocking. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 72. C** - The correct response is interaction. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 73. C** - The correct response is main effect. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

- 74. B** - The correct response is control plan. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 75. D** - The correct response is standard work. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 76. A** - The correct response is poka-yoke. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 77. A** - The correct response is visual management. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 78. D** - The correct response is control chart. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 79. C** - The correct response is common-cause variation. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 80. B** - The correct response is special-cause variation. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 81. C** - The correct response is individuals chart. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 82. D** - The correct response is Xbar-R chart. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 83. B** - The correct response is p chart. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 84. A** - The correct response is u chart. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 85. D** - The correct response is reaction plan. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.
- 86. C** - The correct response is control limits. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful

elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

87. A - The correct response is specification limits. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

88. B - The correct response is auditing. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

89. D - The correct response is handoff plan. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

90. B - The correct response is lessons learned. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

91. C - The correct response is DMAIC. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

92. A - The correct response is Lean waste. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

93. C - The correct response is 5S. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

94. B - The correct response is Kanban. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

95. A - The correct response is cycle time. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

96. D - The correct response is takt time. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

97. B - The correct response is work-in-process limit. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

98. D - The correct response is value stream map. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

99. A - The correct response is change management. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices

may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.

100. C - The correct response is standardization. It directly fits the decision described. The method gives the team an evidence-based way to progress while keeping attention on customer requirements and measurable results. The remaining choices may be useful elsewhere, but none addresses this need as precisely. Choosing it prevents effort, supports analysis, and sustains the improved process.