

PRACTICE EXAM 28: 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. While planning an improvement project, a Green Belt needs to state the business case, problem, goal, scope, and team roles. Which tool or method is the best fit?
 - A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Use project charter to state the business case, problem, goal, scope, and team roles.
 - 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
2. While planning an improvement project, a Green Belt needs to translate customer needs into measurable requirements. Which tool or method is the best fit?
 - 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 voice of the customer to translate customer needs into measurable requirements.
3. While planning an improvement project, a Green Belt needs to identify the measurable requirement most important to customers. Which tool or method is the best fit?
 - 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. While planning an improvement project, a Green Belt needs to define suppliers, inputs, process, outputs, and customers at a high level. Which tool or method is the best fit?
 - 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. While planning an improvement project, a Green Belt needs to assign accountability for sustaining the improved process. Which tool or method is the best fit?
 - 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 process owner to assign accountability for sustaining the improved process.
- 6.** While planning an improvement project, a Green Belt needs to identify interested parties and plan engagement for the project. Which tool or method is the best fit?
- 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.** While planning an improvement project, a Green Belt needs to set clear process boundaries and exclusions for the improvement effort. Which tool or method is the best fit?
- A. Use project scope to set clear process boundaries and exclusions for the improvement effort.
 - 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
- 8.** While planning an improvement project, a Green Belt needs to quantify the expected cost, revenue, or risk impact of the project. Which tool or method is the best fit?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Use financial benefit estimate to quantify the expected cost, revenue, or risk impact of the project.
 - 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
- 9.** While planning an improvement project, a Green Belt needs to write a specific, measurable, attainable, relevant, time-bound target. Which tool or method is the best fit?
- 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.** While planning an improvement project, a Green Belt needs to clarify roles, authority, norms, and decision-making expectations. Which tool or method is the best fit?
- 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.** While planning an improvement project, a Green Belt needs to organize many ideas into natural themes before prioritizing them. Which tool or method is the best fit?
- 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 affinity diagram to organize many ideas into natural themes before prioritizing them.
 - D. Use an FMEA only after the process has failed during normal operation
- 12.** While planning an improvement project, a Green Belt needs to classify customer needs by their effect on satisfaction. Which tool or method is the best fit?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Use Kano analysis to classify customer needs by their effect on satisfaction.
 - 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
- 13.** While planning an improvement project, a Green Belt needs to link customer needs to technical design requirements. Which tool or method is the best fit?
- 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.** While planning an improvement project, a Green Belt needs to separate customer-value work from required and unnecessary work. Which tool or method is the best fit?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Use value-added analysis to separate customer-value work from required and unnecessary work.
 - 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.** While planning an improvement project, a Green Belt needs to show the current sequence of activities and decision points. Which tool or method is the best fit?
- 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 process map to show the current sequence of activities and decision points.
 - D. Use an FMEA only after the process has failed during normal operation
- 16.** While planning an improvement project, a Green Belt needs to specify exactly how a characteristic will be measured and recorded. Which tool or method is the best fit?
- A. Use operational definition to specify exactly how a characteristic will be measured and recorded.
 - 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

- 17.** While planning an improvement project, a Green Belt needs to define what data, who collects it, when, where, and how. Which tool or method is the best fit?
- 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.** While planning an improvement project, a Green Belt needs to select observations that represent the process without unnecessary effort. Which tool or method is the best fit?
- A. Use sampling plan to select observations that represent the process without unnecessary effort.
 - 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
- 19.** While planning an improvement project, a Green Belt needs to evaluate whether measurement variation is acceptable for its use. Which tool or method is the best fit?
- 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.** While planning an improvement project, a Green Belt needs to assess variation when the same appraiser measures the same item repeatedly. Which tool or method is the best fit?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Use repeatability to assess variation when the same appraiser measures the same item repeatedly.
 - 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.** While planning an improvement project, a Green Belt needs to assess variation attributable to different appraisers using one method. Which tool or method is the best fit?
- 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.** While planning an improvement project, a Green Belt needs to compare an instrument against a traceable reference and adjust if needed. Which tool or method is the best fit?
- 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 calibration to compare an instrument against a traceable reference and adjust if needed.
 - D. Use an FMEA only after the process has failed during normal operation
- 23.** While planning an improvement project, a Green Belt needs to determine the consistent difference between observed and reference values. Which tool or method is the best fit?
- A. Use bias study to determine the consistent difference between observed and reference values.
 - 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
- 24.** While planning an improvement project, a Green Belt needs to determine whether measurement bias changes across the operating range. Which tool or method is the best fit?
- 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 linearity study to determine whether measurement bias changes across the operating range.
- 25.** While planning an improvement project, a Green Belt needs to determine whether a measurement system remains consistent over time. Which tool or method is the best fit?
- 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.** While planning an improvement project, a Green Belt needs to display the distribution, center, spread, and shape of continuous data. Which tool or method is the best fit?
- A. Use histogram to display the distribution, center, spread, and shape of continuous data.
 - 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
- 27.** While planning an improvement project, a Green Belt needs to compare medians, spread, and possible outliers across groups. Which tool or method is the best fit?
- 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 boxplot to compare medians, spread, and possible outliers across groups.
- 28.** While planning an improvement project, a Green Belt needs to display data in time order to reveal shifts or nonrandom patterns. Which tool or method is the best fit?

- 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 run chart to display data in time order to reveal shifts or nonrandom patterns.
 - D. Use an FMEA only after the process has failed during normal operation
- 29.** While planning an improvement project, a Green Belt needs to prioritize categories by frequency or impact using descending bars. Which tool or method is the best fit?
- 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.** While planning an improvement project, a Green Belt needs to explore the relationship between two quantitative variables. Which tool or method is the best fit?
- 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.** While planning an improvement project, a Green Belt needs to separate combined data into meaningful subgroups before drawing conclusions. Which tool or method is the best fit?
- A. Use stratification to separate combined data into meaningful subgroups before drawing conclusions.
 - 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
- 32.** While planning an improvement project, a Green Belt needs to collect consistently coded counts at the point of occurrence. Which tool or method is the best fit?
- 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 check sheet to collect consistently coded counts at the point of occurrence.
- 33.** While planning an improvement project, a Green Belt needs to compare stable process performance with specification limits. Which tool or method is the best fit?
- A. Use process capability to compare stable process performance with specification limits.
 - 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

34. While planning an improvement project, a Green Belt needs to assess potential capability using process spread and specification width. Which tool or method is the best fit?

- 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. While planning an improvement project, a Green Belt needs to assess actual capability after considering process centering. Which tool or method is the best fit?

- 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 Cpk index to assess actual capability after considering process centering.

36. While planning an improvement project, a Green Belt needs to express defect opportunities relative to the number of units inspected. Which tool or method is the best fit?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Use defects per unit to express defect opportunities relative to the number of units inspected.
- 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

37. While planning an improvement project, a Green Belt needs to measure the proportion completing a process correctly without rework. Which tool or method is the best fit?

- 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. While planning an improvement project, a Green Belt needs to estimate the probability a unit passes every step without defects. Which tool or method is the best fit?

- 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 rolled throughput yield to estimate the probability a unit passes every step without defects.
- D. Use an FMEA only after the process has failed during normal operation

39. While planning an improvement project, a Green Belt needs to explain why sample means tend toward a normal distribution as sample size grows. Which tool or method is the best fit?

- 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 central limit theorem to explain why sample means tend toward a normal distribution as sample size grows.
- 40.** While planning an improvement project, a Green Belt needs to estimate a plausible range for an unknown population parameter. Which tool or method is the best fit?
- 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.** While planning an improvement project, a Green Belt needs to state the default claim tested for evidence of a difference or effect. Which tool or method is the best fit?
- 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 null hypothesis to state the default claim tested for evidence of a difference or effect.
 - D. Use an FMEA only after the process has failed during normal operation
- 42.** While planning an improvement project, a Green Belt needs to quantify how surprising observed data would be if the null hypothesis were true. Which tool or method is the best fit?
- 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 p-value to quantify how surprising observed data would be if the null hypothesis were true.
- 43.** While planning an improvement project, a Green Belt needs to recognize the risk of rejecting a true null hypothesis. Which tool or method is the best fit?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Use Type I error to recognize the risk of rejecting a true null hypothesis.
 - 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
- 44.** While planning an improvement project, a Green Belt needs to recognize the risk of failing to reject a false null hypothesis. Which tool or method is the best fit?
- 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.** While planning an improvement project, a Green Belt needs to judge whether a statistically detectable difference matters operationally. Which tool or method is the best fit?
- A. Use practical significance to judge whether a statistically detectable difference matters operationally.
 - 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
- 46.** While planning an improvement project, a Green Belt needs to measure the direction and strength of a linear association. Which tool or method is the best fit?
- 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 correlation to measure the direction and strength of a linear association.
 - D. Use an FMEA only after the process has failed during normal operation
- 47.** While planning an improvement project, a Green Belt needs to model the expected response as predictors change. Which tool or method is the best fit?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Use regression to model the expected response as predictors change.
 - 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
- 48.** While planning an improvement project, a Green Belt needs to assess whether observed data reasonably follow a normal distribution. Which tool or method is the best fit?
- 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 normal probability plot to assess whether observed data reasonably follow a normal distribution.
- 49.** While planning an improvement project, a Green Belt needs to compare groups when assumptions for a parametric test are not reasonable. Which tool or method is the best fit?
- 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 nonparametric test to compare groups when assumptions for a parametric test are not reasonable.
- 50.** While planning an improvement project, a Green Belt needs to organize possible causes into categories for structured investigation. Which tool or method is the best fit?
- A. Use fishbone diagram to organize possible causes into categories for structured investigation.
 - 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

51. While planning an improvement project, a Green Belt needs to probe successive causal links to reach a controllable root cause. Which tool or method is the best fit?

- 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 5 Whys to probe successive causal links to reach a controllable root cause.
- D. Use an FMEA only after the process has failed during normal operation

52. While planning an improvement project, a Green Belt needs to rank input variables by their relationship to customer requirements. Which tool or method is the best fit?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Use cause-and-effect matrix to rank input variables by their relationship to customer 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

53. While planning an improvement project, a Green Belt needs to anticipate failure modes, effects, causes, and controls before release. Which tool or method is the best fit?

- 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. While planning an improvement project, a Green Belt needs to prioritize fmea actions using severity, occurrence, and detection ratings. Which tool or method is the best fit?

- A. Use risk priority number to prioritize fmea actions using severity, occurrence, and detection ratings.
- 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

55. While planning an improvement project, a Green Belt needs to separate variation by positional, cyclical, and temporal sources. Which tool or method is the best fit?

- 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. While planning an improvement project, a Green Belt needs to test whether a population mean differs from a stated or comparison value. Which tool or method is the best fit?

- 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 means to test whether a population mean differs from a stated or comparison value.
- 57.** While planning an improvement project, a Green Belt needs to test whether a population proportion differs from a stated or comparison value. Which tool or method is the best fit?
- 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 hypothesis test for proportions to test whether a population proportion differs from a stated or comparison value.
 - D. Use an FMEA only after the process has failed during normal operation
- 58.** While planning an improvement project, a Green Belt needs to test association between categorical variables or fit to expected counts. Which tool or method is the best fit?
- 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 chi-square test to test association between categorical variables or fit to expected counts.
- 59.** While planning an improvement project, a Green Belt needs to compare means across three or more independent groups. Which tool or method is the best fit?
- 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.** While planning an improvement project, a Green Belt needs to compare two related measurements taken from the same units. Which tool or method is the best fit?
- 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.** While planning an improvement project, a Green Belt needs to estimate the chance a study detects a meaningful effect when it exists. Which tool or method is the best fit?
- 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.** While planning an improvement project, a Green Belt needs to confirm a suspected cause with data before selecting solutions. Which tool or method is the best fit?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Use root-cause verification to confirm a suspected cause with data before selecting solutions.
 - 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
- 63.** While planning an improvement project, a Green Belt needs to generate many possible solutions before evaluating or selecting them. Which tool or method is the best fit?
- 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.** While planning an improvement project, a Green Belt needs to compare solution alternatives against weighted selection criteria. Which tool or method is the best fit?
- 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 Pugh matrix to compare solution alternatives against weighted selection criteria.
- 65.** While planning an improvement project, a Green Belt needs to try a proposed change on a limited scale before full implementation. Which tool or method is the best fit?
- A. Use pilot test to try a proposed change on a limited scale before full implementation.
 - 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
- 66.** While planning an improvement project, a Green Belt needs to study factor effects and interactions through planned experimental changes. Which tool or method is the best fit?
- 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 DOE to study factor effects and interactions through planned experimental changes.
 - D. Use an FMEA only after the process has failed during normal operation
- 67.** While planning an improvement project, a Green Belt needs to identify an input deliberately changed during an experiment. Which tool or method is the best fit?
- 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. While planning an improvement project, a Green Belt needs to identify the measured outcome used to judge experimental results. Which tool or method is the best fit?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Use response to identify the measured outcome used to judge experimental results.
- 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. While planning an improvement project, a Green Belt needs to reduce bias by assigning experimental runs in an unpredictable order. Which tool or method is the best fit?

- A. Use randomization to reduce bias by assigning experimental runs in an unpredictable order.
- 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

70. While planning an improvement project, a Green Belt needs to estimate experimental error by repeating treatments independently. Which tool or method is the best fit?

- 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 replication to estimate experimental error by repeating treatments independently.
- D. Use an FMEA only after the process has failed during normal operation

71. While planning an improvement project, a Green Belt needs to reduce nuisance variation by grouping similar experimental units. Which tool or method is the best fit?

- 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 blocking to reduce nuisance variation by grouping similar experimental units.

72. While planning an improvement project, a Green Belt needs to recognize when one factor's effect depends on another factor level. Which tool or method is the best fit?

- A. Use interaction to recognize when one factor's effect depends on another factor 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

- 73.** While planning an improvement project, a Green Belt needs to estimate the average change in response from changing one factor. Which tool or method is the best fit?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Use main effect to estimate the average change in response from changing one factor.
 - 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
- 74.** While planning an improvement project, a Green Belt needs to document how key inputs and outputs will be monitored and reacted to. Which tool or method is the best fit?
- 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 plan to document how key inputs and outputs will be monitored and reacted to.
 - D. Use an FMEA only after the process has failed during normal operation
- 75.** While planning an improvement project, a Green Belt needs to define the current best method so work is performed consistently. Which tool or method is the best fit?
- 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.** While planning an improvement project, a Green Belt needs to prevent an error or make an error immediately obvious at its source. Which tool or method is the best fit?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Use poka-yoke to prevent an error or make an error immediately obvious at its source.
 - 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.** While planning an improvement project, a Green Belt needs to make process status, standards, and abnormalities easy to see. Which tool or method is the best fit?
- 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 visual management to make process status, standards, and abnormalities easy to see.
- 78.** While planning an improvement project, a Green Belt needs to distinguish common-cause variation from special-cause signals over time. Which tool or method is the best fit?
- A. Use control chart to distinguish common-cause variation from special-cause signals over time.
 - 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

79. While planning an improvement project, a Green Belt needs to recognize routine variation inherent in a stable process system. Which tool or method is the best fit?

- 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. While planning an improvement project, a Green Belt needs to recognize a signal caused by a specific, nonroutine influence. Which tool or method is the best fit?

- 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. While planning an improvement project, a Green Belt needs to monitor a continuous measure when observations are collected one at a time. Which tool or method is the best fit?

- 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. While planning an improvement project, a Green Belt needs to monitor subgroup averages and ranges for a continuous characteristic. Which tool or method is the best fit?

- 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. While planning an improvement project, a Green Belt needs to monitor the proportion nonconforming when sample sizes may differ. Which tool or method is the best fit?

- 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. While planning an improvement project, a Green Belt needs to monitor defects per unit when inspection opportunity varies. Which tool or method is the best fit?

- 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. While planning an improvement project, a Green Belt needs to specify who does what when a control signal or limit violation occurs. Which tool or method is the best fit?

- 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. While planning an improvement project, a Green Belt needs to set statistically calculated boundaries representing expected process variation. Which tool or method is the best fit?

- A. Use control limits to set statistically calculated boundaries representing expected process variation.
- 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

87. While planning an improvement project, a Green Belt needs to state customer or design requirements for acceptable output. Which tool or method is the best fit?

- 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 specification limits to state customer or design requirements for acceptable output.
- D. Use an FMEA only after the process has failed during normal operation

88. While planning an improvement project, a Green Belt needs to verify that documented controls and standard work are being followed. Which tool or method is the best fit?

- 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. While planning an improvement project, a Green Belt needs to transfer ownership, training, measures, and responsibilities after project closure. Which tool or method is the best fit?

- 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. While planning an improvement project, a Green Belt needs to capture reusable knowledge about methods, risks, and project decisions. Which tool or method is the best fit?

- A. Use lessons learned to capture reusable knowledge about methods, risks, and project decisions.
- 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

91. While planning an improvement project, a Green Belt needs to use define, measure, analyze, improve, and control for improving an existing process. Which tool or method is the best fit?

- 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. While planning an improvement project, a Green Belt needs to identify non-value-added effort such as waiting, rework, or excess movement. Which tool or method is the best fit?

- 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. While planning an improvement project, a Green Belt needs to organize and sustain an orderly workplace that supports reliable work. Which tool or method is the best fit?

- A. Apply a control chart to monitor stability after the process is fully implemented
- B. Use 5S to organize and sustain an orderly workplace that supports reliable work.
- 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

94. While planning an improvement project, a Green Belt needs to signal replenishment based on downstream consumption and agreed limits. Which tool or method is the best fit?

- 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 Kanban to signal replenishment based on downstream consumption and agreed limits.
- D. Use an FMEA only after the process has failed during normal operation

95. While planning an improvement project, a Green Belt needs to measure elapsed time required to complete one unit of work. Which tool or method is the best fit?

- 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 cycle time to measure elapsed time required to complete one unit of work.
- 96.** While planning an improvement project, a Green Belt needs to set the production pace needed to meet customer demand. Which tool or method is the best fit?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Use takt time to set the production pace needed to meet customer demand.
 - 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
- 97.** While planning an improvement project, a Green Belt needs to constrain in-process inventory to expose flow problems and prevent overload. Which tool or method is the best fit?
- 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 work-in-process limit to constrain in-process inventory to expose flow problems and prevent overload.
- 98.** While planning an improvement project, a Green Belt needs to map material and information flow to identify delays and improvement opportunities. Which tool or method is the best fit?
- A. Use value stream map to map material and information flow to identify delays and improvement opportunities.
 - 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
- 99.** While planning an improvement project, a Green Belt needs to plan communication, sponsorship, training, and adoption for a process change. Which tool or method is the best fit?
- 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 change management to plan communication, sponsorship, training, and adoption for a process change.
 - D. Use an FMEA only after the process has failed during normal operation
- 100.** While planning an improvement project, a Green Belt needs to document and deploy a proven method so the improved process can be repeated. Which tool or method is the best fit?
- A. Apply a control chart to monitor stability after the process is fully implemented
 - B. Use standardization to document and deploy a proven method so the improved process can be repeated.
 - 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

PRACTICE EXAM 28: ANSWER KEY AND EXPLANATIONS

1. **B** - 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. **D** - 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. **D** - 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. **A** - 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. **B** - 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. **C** - 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. **B** - 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. B - 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. C - 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. A - 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. A - 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. B - 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. C - 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. A - 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. D - 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. A - 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. D - 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. C - 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. A - 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. D - 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. A - 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. D - 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. B - 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. C - 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. D - 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. C - 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. D - 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. B - 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. A - 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. C - 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. B - 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. D - 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. D - 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. A - 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. C - 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. B - 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. A - 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. D - 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. C - 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. D - 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. B** - 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. D** - 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. A** - 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. C** - 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. B** - 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. A** - 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. C** - 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. D** - 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. A** - 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. B** - 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. C** - 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. B** - 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. D** - 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. A** - 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. A** - 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.

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

87. C - 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. A - 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. B - 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. C - 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. D - 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. B - 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. D - 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. A - 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. C - 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. B - 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.