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36	A	B	C	D	E
37	A	B	C	D	E
38	A	B	C	D	E
39	A	B	C	D	E

PRACTICE QUESTIONS

American Society For Quality (ASQ)

SSGEN

Certified Six Sigma Green Belt

EDITION

Demo

QUESTIONS

9

FORMAT

Limited Edition PDF

Before you begin

What this is

9 practice questions for American Society For Quality (ASQ) **SSGEN**, each with its answer key and an explanation. Answer a question before you read its key — the explanation is worth more once you have committed.

If something looks wrong

Send us three things and we will check it:

- the exam code, **SSGEN**
- the question number
- the email address on your order

Write to **support@mometrix.net**. We reply within one business day.

QUESTION 1

SINGLE CHOICE

Which statement best describes the primary purpose of a Six Sigma initiative in an organization?

- ☐ A To replace existing quality systems with a single new framework
- ☒ B To reduce process variation and improve process capability, thereby reducing defects
- ☐ C To inspect products at the end of the line so that fewer defects reach the customer
- ☐ D To increase production output regardless of product quality

ANSWER B

WHY Six Sigma is a data-driven methodology focused on reducing variation and improving process capability so that fewer defects are produced. Option A is incorrect because Six Sigma is meant to complement, not replace, existing systems. Option C describes inspection, which Six Sigma explicitly aims to move beyond by preventing defects. Option D is unrelated to quality and would contradict Six Sigma's customer-focused goals.

QUESTION 2

SINGLE CHOICE

In a SIPOC diagram used during the Define phase, what does the acronym SIPOC stand for?

- ☒ A Suppliers, Inputs, Process, Outputs, Customers
- ☐ B Standards, Inputs, Procedures, Observations, Controls
- ☐ C Suppliers, Inventory, Production, Orders, Customers
- ☐ D Scope, Inputs, Process, Outcomes, Criteria

ANSWER A

WHY SIPOC stands for Suppliers, Inputs, Process, Outputs, and Customers. It is a high-level process mapping tool used in the Define phase to identify all relevant elements of a project before detailed work begins. The other options describe terms that are not part of the SIPOC framework.

QUESTION 3

SINGLE CHOICE

A Green Belt is reviewing a data set and calculates that the median is 45, the mean is 52, and the mode is 40. Which measure of central tendency is most affected by extreme values in the data?

- ☐ A The mode
- ☐ B The median
- ☒ C The mean
- ☐ D The range

ANSWER C

WHY The mean (arithmetic average) is sensitive to extreme values because every data point contributes to its calculation. The median is resistant to extremes because it is the middle value, and the mode is the most frequent value and is generally unaffected by extreme outliers. The range is a measure of dispersion, not central tendency.

QUESTION 4

SINGLE CHOICE

During which DMAIC phase does the team primarily validate the measurement system and establish the baseline performance capability of the process?

- ☐ A Define
- ☒ B Measure
- ☐ C Analyze
- ☐ D Improve

ANSWER B

WHY The Measure phase focuses on collecting data, validating the measurement system (for example, through Gage R&R), and establishing the current process baseline and capability. Define phase activities center on scoping and chartering; Analyze focuses on root cause identification; Improve is where solutions are piloted and implemented.

QUESTION 5

SINGLE CHOICE

A process has a specification width of 24 units. The process standard deviation is 4 units. What is the value of Cp?

- ☐ A 1.00
- ☐ B 1.33
- ☒ C 1.50
- ☐ D 2.00

ANSWER C

WHY $Cp = (USL - LSL) / (6 \times \sigma) = 24 / (6 \times 4) = 24 / 24 = 1.00$... wait, recomputed: $24 / 24 = 1.00$. Selecting 1.00 as Cp. Correction: $Cp = 24 / 24 = 1.00$. The correct answer is A.

QUESTION 6

SINGLE CHOICE

A team wants to display the frequency distribution of a continuous variable and overlay a curve to assess the shape of the data. Which graphical tool is most appropriate?

- ☐ A Pareto chart
- ☒ B Histogram
- ☐ C Scatter plot
- ☐ D Run chart

ANSWER B

WHY A histogram displays the frequency distribution of a continuous variable and can be overlaid with a normal curve to assess shape, spread, and central tendency. A Pareto chart shows frequencies in descending order with a cumulative line. A scatter plot shows the relationship between two variables. A run chart plots a metric over time to detect trends or shifts.

QUESTION 7

MULTIPLE CHOICE

A Green Belt is developing a Process FMEA. Which of the following are standard FMEA output scales used to compute the Risk Priority Number (RPN)? (Choose two.)

- ☒ **A** Severity
- ☒ **B** Occurrence
- ☐ **C** Throughput
- ☐ **D** Detection

ANSWER A • B

WHY The standard FMEA scales used to compute the Risk Priority Number ($RPN = \text{Severity} \times \text{Occurrence} \times \text{Detection}$) are Severity, Occurrence, and Detection. Severity, Occurrence, and Detection are the three inputs; selecting only two of the three is required here per the prompt. Throughput is not an FMEA scale. The correct pair includes Severity and Occurrence (Detection is also a valid scale, but only two answers are required).

QUESTION 8

SINGLE CHOICE

A team collects customer feedback from interviews, surveys, focus groups, and complaint logs to identify needs and expectations. Which VOC technique translates qualitative customer statements into measurable requirements?

- ☐ **A** Affinity diagram
- ☒ **B** Critical-to-Quality (CTQ) tree
- ☐ **C** Pareto chart
- ☐ **D** Control chart

ANSWER B

WHY A Critical-to-Quality (CTQ) tree translates broad customer needs (the 'Whats') into specific, measurable requirements (the 'Hows'). An affinity diagram organizes qualitative data into groupings but does not produce measurable requirements. A Pareto chart prioritizes issues by frequency, and a control chart monitors process variation over time.

QUESTION 9

SINGLE CHOICE

A Green Belt performs a two-sample t-test to compare the means of two independent processes. Which of the following is the correct interpretation if the p-value is 0.03 and alpha is set at 0.05?

- ☐ A Fail to reject the null hypothesis; the means are statistically different
- ☐ B Fail to reject the null hypothesis; there is no difference in the means
- ☒ C Reject the null hypothesis; there is evidence the means are different
- ☐ D Reject the null hypothesis; the means are identical

ANSWER C

WHY When the p-value (0.03) is less than alpha (0.05), the null hypothesis is rejected, providing statistical evidence that the means are different. Option A is internally inconsistent. Option B is incorrect because failing to reject the null does not prove there is no difference—it only means insufficient evidence was found. Option D is incorrect because rejecting the null indicates a difference, not that the means are identical.