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**THE  
SIX SIGMA GREEN BELT  
SOLUTIONS TEXT**

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## SECTION IV

### DEFINE - TEAMS & CUSTOMERS - SAMPLE QUESTIONS

- 4.1. The right hand side of a completed "house of quality" (HOQ) displays rankings and values for:
- Customer needs or desires
  - Competitive assessments or comparisons
  - Design feature measurements and importance
  - Design feature interactions

Solution: The subroof of a HOQ displays design features and the roof shows design feature interactions (**d** eliminated). The "basement" of the HOQ shows target values, or design features and technical importance (**c** eliminated). The left side of the HOQ details key customer needs or desires (**a** eliminated). The right side of the HOQ shows competitive assessments and/or comparisons.

**Answer b is correct.**

Reference: *CSSGB Primer* Section III - 44/45 and Section IV - 28.

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- 4.2. Which of the following techniques has proven useful in translating customer needs into product design features?
- Changing perceptions
  - Customer service principles
  - Confrontation and problem solving
  - Quality function deployment

Solution: Answers **a** and **c** are customer conflict resolution techniques. Answer **b** addresses service principles, not the question at hand. The role of quality function deployment (QFD) is to translate customer needs into design features.

**Answer d is correct.**

Reference: *CSSGB Primer* Section III - 44/46 and Section IV - 27/29.

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- 4.3. The SIPOC business model helps everyone in the company see the business from an overall process perspective. However, it does NOT:
- Provide a framework applicable to processes of all sizes
  - Identify the few key business customers
  - Display cross-function activities in simple terms
  - Help maintain the big business picture

Solution: Note that a negative response is requested. The odd choice out is answer **b**. Identification of the key business customers is done by means other than a SIPOC model. The other answers **a**, **c** and **d** are valid.

**Answer b is the correct, incorrect, choice.**

Reference: *CSSGB Primer* Section IV - 5/6.

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- 4.4. The organization's customer service program can be enhanced in many ways. One of the ways would be:
- Provide better procedures for customer service personnel
  - Restrict access to customer data
  - Have supervisors available to answer more questions
  - Utilize employee involvement

Solution: Customer service is important to an organization. To increase its effectiveness, everyone should be involved. This would mean all employees. Better procedures (answer **a**) can help. Restricting access to customer data (answer **b**) is not good. A supervisor being available to answer more questions (answer **c**) is going backwards. Employee involvement places decision making at the level where the action occurs (answer **d**).

**Answer d is correct.**

References: *CSSGB Primer* Section IV - 11 and 14 (and logic).

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- 4.5. Having extensive industry knowledge makes upper management "experts" in customer needs and desires. To win in the marketplace they should:
- Authorize many new products as soon as possible
  - Start with a new marketing plan fitting customer needs
  - Develop a strategic plan for new products
  - Ask for help, because they often don't really know the customer

Solution: One can learn from the experiences of the 1970s U.S. automotive experts as they were being pushed around by the Japanese auto makers. The U.S. auto makers knew the American public, it was their market for 60 years. Fresh customer data is always needed. The question suggests that management knows it all and does not need any more information. Answers **a**, **b** and **c** imply that a producer is going ahead with a marketing effort without customer input. Answer **d** is correct, because of the producer's need for more information.

**Answer d is correct.**

Reference: *CSSGB Primer* Section IV - 16/25 (and logic).

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- 4.6. A customer satisfaction program was started on the right foot and has gone very well for the last year or so. The company should:
- Look to improve the program, with new customer input
  - Do nothing with the program, it's not broken
  - Form a manager's group to add new wrinkles to the program
  - Concentrate on long-term customers

Solution: Even though the customer satisfaction program has gone well for a certain time frame, one still must continue to listen to the customer. Answer **b**, to do nothing, would probably not keep your company competitive. Answer **c**, forming a manager's group, is too restrictive. It permits internal people to formulate external customer expectations. Answer **d** is too restrictive for a variety of reasons. Lack of growth could be one of them. Answer **a** obtains new customer input, and is a good choice.

**Answer a is correct.**

Reference: *CSSGB Primer* Section IV - 12/20 (and logic).

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- 4.7. A six sigma improvement team may be required to analyze customer data in order to define a project or the results of an improvement. Which of the following tools would be of LEAST value?
- Conflict resolution
  - Statistical analysis
  - Matrix diagrams
  - Pareto analysis

Solution: Note that a negative response is requested. The techniques suggested by answers **b**, **c** and **d**, plus others, can be employed. Additionally, most of these tools are more effective if they are used on similar customer data, over different time periods, to ascertain if the improvement is still valid or if there are changes in the market. Answer **a** is a good choice for many questions but not this one.

**Answer a is the correct, incorrect, choice.**

Reference: *CSSGB Primer* Section IV - 21/22 and 67/71.

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4.8. Customer expectations follow which hierarchy of needs, from low to high?

- I. Expected
  - II. Basic
  - III. Unanticipated
  - IV. Desired
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- a. II, I, IV, III
  - b. III, I, II, IV
  - c. IV, II, I, III
  - d. I, II, III, IV

Solution: There is a hierarchy of customer expectations in regard to product or service quality. It is similar in nature to Maslow's hierarchy of needs. The hierarchy of customer expectations follow the stages of basic (II), expected (I), desired (IV) and unanticipated (III). Only answer **a** starts with II, and continues with the correct sequence.

**Answer a is correct.**

Reference: CSSGB Primer Section IV - 23/24.

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4.9. During the team building phase, which of the following best describes the actions of the team?

- a. The group is uncertain of their duties
- b. Members prioritize and perform tasks
- c. Member cooperation is evident
- d. The team leader usually delegates duties

Solution: This question requires some knowledge of team life cycles. Some authorities refer to the team life cycle phases as build, develop and optimize. Others use forming, storming, norming and performing. The building phase is an early one in which the leader provides more direction and the group is uncertain of their roles and duties (Answer **a**). During this period, the leader does not delegate responsibilities readily and the team usually does not have the skills and experience to prioritize and perform tasks without assistance.

**Answer a is correct.**

Reference: CSSGB Primer Section IV - 45/47.

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4.10. In most cases, an improvement team receives the least control and direction during which of the following stages:

- a. Building
- b. Storming
- c. Performing
- d. Alarming

Solution: The performing stage is the most mature and advanced team stage. The team leader (and/or facilitator) would provide the least control and direction because the team has demonstrated their own effective decision making capability.

**Answer c is correct.**

Reference: *CSSGB Primer* Section IV - 45/47.

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4.11. Excessive conflict within an improvement team:

- a. Has a negative effect on team members and should be avoided
- b. Has a positive effect on creating alternate solutions
- c. Most often results in win-win situations
- d. Promotes equal participation among members

Solution: Excessive conflict within a team often has a negative effect on team members. Conflict most often results in win-lose or lose-lose situations. Rarely will either a win-win situation or creative alternate solutions result. Only a few exceptional personalities thrive in an environment of conflict.

**Answer a is correct.**

Reference: *CSSGB Primer* Section IV - 59, 67/71.

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4.12. Good improvement team members will:

- a. Provide valid excuses when they miss a meeting
- b. Agree with the team even when it is wrong
- c. Encourage participation by other team members
- d. Withhold unpopular information from the team

Answers **b** and **d** might indicate a condition known as groupthink, which is to be avoided. Generally, good team members don't miss meetings and therefore, don't need excuses (**a**). A good team member will encourage participation by other members.

**Answer c is correct.**

Reference: *CSSGB Primer* Section IV - 55 and 59/60.

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4.13. Which of the following describes poorly functioning teams?

- a. Members act independently without inter-dependency
- b. Objectives are realistically set and met
- c. Team members listen to what is being said
- d. Facts and opinions are distinguished

Solution: The key question phrase is "poorly functioning." Answers **b**, **c** and **d** are desirable team characteristics (team members listen well and objectives are realistically set and met and facts and opinions are distinguished). Answer **a** is a poor characteristic in any team or group. Team members must be able to act both independent and interdependently.

**Answer a is correct.**

Reference: *CSSGB Primer* Section IV - 40/41, 45/47, 53/55 and 59/61.

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4.14. Effective team mechanics would typically NOT include which of the following?

- a. The development of an agenda
- b. The support of upper management
- c. The distribution of minutes
- d. The meeting time, frequency and location

Solution: The keys to this question are "mechanics" and "not include." A team must have the support of upper management (answer **b**). However, this is the answer to a question that is not asked. This question deals with team mechanics, which includes agendas, times, locations, minutes, etc. Answers **a**, **c** and **d** are all necessary team mechanics.

**Answer b is the correct, incorrect, choice.**

Reference: *CSSGB Primer* Section IV - 34/35 and 40/41.

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4.15. When giving instructions to those who will perform a task, the communication process is completed:

- a. When the worker goes to his work station to do the task
- b. When the person giving the instruction has finished talking
- c. When the worker acknowledges these instructions by describing how he/she will perform the task
- d. When the worker says that he/she understands the instructions

Solution: The best communication process allows for effective feedback. The most comprehensive feedback from the four choices is answer **c**.

**Answer c is correct.**

References: *CSSGB Primer* Section IV - 62/66 (and logic). This question has been modified from a published CQE exam.

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- 4.16. Understanding, controlling and improving an organization's processes to create value for all stakeholders would be called:
- The SIPOC diagram
  - Process performance metric
  - Business process management
  - The establishment of KPIVs and KPOVs

Solution: The question is describing business process management (BPM), answer **c**.. The other answers are tools and techniques that could be used to support BPM.

**Answer c is correct.**

Reference: *CSSGB Primer* Section IV - 2/6.

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- 4.17. As an alternative to QFD, the plotting of items of customer importance versus the customer's corresponding satisfaction level, using a form of Likert scale would most appropriately be called:
- A matrix diagram
  - A perceptual map
  - A cause-and-effect matrix
  - A correlation chart

Solution: A form of matrix diagram is being described. Thus, answer **d** can be eliminated. There is no evidence that a cause-and-effect relationship is being considered. Therefore, answer **c** can be eliminated. Without specific knowledge, the choice comes down to either **a** or **b**. However, a perceptual map is a specialized matrix diagram that captures the perceptions of the customer.

**Answer b is correct.**

Reference: *CSSGB Primer* Section IV - 30/31.

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- 4.18. One would say that, from an overall perspective, the activities of a company are tied together by:
- Customers
  - Stockholders
  - Suppliers
  - Process management

Solution: In the context of the question, almost any model or schematic of an organization has either a business process management or internal company process at its core.

**Answer d is correct.**

Reference: *CSSGB Primer* Section IV - 2/9.

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- 4.19. If a company fails to meet their quarterly projected sales and profit forecasts, which of the following stakeholder groups would be LEAST affected?
- a. Suppliers
  - b. Stockholders
  - c. Employees
  - d. Society

Solution: Note that a negative response is requested. In today's volatile stock market, the share price could drop 10% or more if the quarterly sales or profit forecast were missed. Dependent upon how badly the numbers were missed, employees and suppliers could be affected as well.

Society (particularly local society) could also be impacted but certainly to a lesser extent.

**Answer d is the correct, incorrect, choice.**

Reference: *CSSGB Primer* Section IV - 7/9 (and logic).

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- 4.20. The key difference between internal and external customers is:
- a. Their interest in the product or service
  - b. Internal customers can influence the design of the product
  - c. External customers usually influence the design of the product
  - d. External customers best determine the true quality of the product

Solution: In this question, the problem is to find the best answer among the four choices. What is unique or different? Answers **a**, **b** and **c** are true for both internal and external customers. Answer **d** is best because the external customer's perception of quality really determines a company's survival.

**Answer d is correct.**

Reference: *CSSGB Primer* Section IV - 11/16 (and logic).

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- 4.21. On surveys from customers, what do high customer satisfaction numbers NOT indicate?
- a. Customer satisfaction
  - b. Customer service
  - c. Customer loyalty
  - d. Product quality satisfaction

Solution: This question seeks the best negative answer choice. Most questionnaires and surveys can measure degrees of customer satisfaction (answer **a**), customer service (answer **b**), and product quality (answer **d**). Satisfied customers are not necessarily very loyal (answer **c**).

**Answer c is the correct, incorrect, choice.**

Reference: *CSSGB Primer* Section IV - 15/20 (and logic).

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4.22. The fundamental purpose of establishing teams is to:

- a. Provide team members a form of job enrichment and broadening
- b. Improve the internal efficiencies of the organization
- c. Teach team members new problem solving skills
- d. Avoid spending money on outside consultants

Solution: Teams may provide particular members with opportunities to broaden their skill and experience sets, as well as increased visibility and self-satisfaction, but those are ancillary benefits, rather than the fundamental purpose of establishing teams.

Teams are formed to improve processes and solve problems. Because this ultimately is designed to enable the organization to better perform its purpose with a lesser amount of wasted effort and resources, teams are ultimately formed to improve the efficiencies of the organization.

**Answer b is correct.**

Reference: CSSGB Primer, Section IV - 34/35.

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4.23. Which six sigma role is most likely to define objectives for an improvement team?

- a. Leader
- b. Sponsor
- c. Facilitator
- d. Member

Solution: The team sponsor is often likely to define team objectives. The second best choice is the team leader, although this is usually not the case.

Team facilitators and members do not define team objectives.

**Answer b is correct.**

Reference: CSSGB Primer Section IV - 49/55.