



## SAMPLE EXAMINATION

**The purpose of the following sample examination is to present an example of what is provided on exam day by ASQ, complete with the same instructions that are given on exam day.**

**The test questions that appear in this sample examination are retired from the CQIA pool and have appeared in past CQIA examinations. Since they are now available to the public, they will NOT appear in future CQIA examinations. This sample examination WILL NOT be allowed into the exam room.**

**Appendix A contains the answers to the sample test questions. ASQ will not provide scoring and analysis for this sample examination. Remember: These test questions will not appear on future examinations so your performance on this sample examination may not reflect how you perform on the formal examination. A self-appraisal of how well you know the content for the specific areas of the body of knowledge (BOK) can be completed by using the worksheet in Appendix B.**

**On page 2 of the instructions, it states “There are 100 questions on this three-hour examination.” Please note that this sample exam only contains 25 questions.**

If you have any questions regarding this sample examination, please email [cert@asq.org](mailto:cert@asq.org)

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NAME \_\_\_\_\_

## CERTIFIED QUALITY IMPROVEMENT ASSOCIATE

Please print your name above. Read all the instructions before beginning the examination. If you are unsure about any part of the instructions, consult your proctor.

### **General Instructions**

All answers **must** be recorded on the Scantron Answer Sheet; no exam will be graded with the answers marked in the exam booklet.

1. Using a soft lead pencil (#2 or softer) only, blacken the circle of the correct answer. **Do not use ink.** If you change your answer, be sure to erase the previous answer completely.
2. Each question has **ONE** correct answer only.
3. This is a timed test; do not linger over difficult questions. Instead, skip the questions of which you are unsure; return to them when you reach the end of the test.
4. Do not fold, staple, or tear the answer sheets.
5. Although this is an open book examination and personally generated materials/notes from training or refresher courses **are** allowed, the following conditions apply:
  - Each examinee must make his/her reference materials available to the proctor for review.
  - Absolutely no collections of questions and answers or weekly refresher course quizzes are permitted. Reference sources that contain such copy are not allowed unless the questions and answers are removed or obscured. **Examples of such sources include but are not limited to refresher and preparatory primers.**
  - **Calculator Policy:** With the introduction of palmtop computers and increasing sophistication of scientific calculators, ASQ has become increasingly aware of the need to limit the types of calculators that are permitted for use during the examinations. **Any silent, hand-held, battery-operated calculator WITHOUT an alphabetic keyboard will be permitted; however, all programmable memory must be cleared from the calculator before you enter the exam room.** The examination is written so that a simple calculator will be sufficient to perform calculations.
  - No laptop or palmtop computers are allowed.
  - No Cell Phones are allowed in exam room
  - Reference materials and calculators may not be shared
6. When you have finished, check your answer sheet to be sure it is properly identified with your name and member number. Return your examination booklet, answer sheet, examinee comment form and scratch paper to your proctor. You must sign the roster sheet to signify the return of your test booklet.
7. It is strictly forbidden to copy or remove examination materials. You will be disqualified from the examination and not certified by ASQ if you breach this trust.
8. **TEST RESULTS** – you can check your test results 7-9 days after the exam date by logging into the [www.asq.org](http://www.asq.org) website and navigating to the Certification webpage. Otherwise, your exam results will be mailed in approximately three weeks. **Please Be Patient** we do not answer telephone requests for results.



## CERTIFIED QUALITY IMPROVEMENT ASSOCIATE Test

Directions: Each of the questions or incomplete statements below is followed by four suggested answers or completions. Select the one that is best in each case and then fill in the corresponding space on the answer sheet.

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1. Process audits serve which of the following functions?
  - (A) To identify low performing employees
  - (B) To ensure standardized quality practices
  - (C) To develop corrective actions
  - (D) To find non-compliant products
  
2. Deming advocates ceasing dependence on mass inspection through the use of
  - (A) sample inspection
  - (B) process validation
  - (C) reliability testing
  - (D) process improvement
  
3. A product audit is best described as
  - (A) a detailed examination of a finished product
  - (B) an examination of an activity to verify conformance to established procedures
  - (C) an examination of a company's management methods
  - (D) an independent evaluation of various aspects of part or component performance
  
4. Quality is best defined as meeting
  - (A) technical specifications
  - (B) customer needs
  - (C) budget requirements
  - (D) purchase order requirements
  
5. In order for a problem to be understood and solved correctly, which of the following must occur first?
  - (A) Recognizing the problem
  - (B) Diagnosing the causes
  - (C) Forming an improvement team
  - (D) Obtaining management support
  
6. "Forming, storming, norming, and performing" are terms that describe
  - (A) process variation reduction and improvement phases
  - (B) brainstorming process steps
  - (C) stages of team growth
  - (D) root cause identification and corrective action
  
7. Which of the following is NOT one of the quality elements in the Juran Trilogy?
  - (A) Quality control
  - (B) Quality planning
  - (C) Quality audits
  - (D) Quality improvement
  
8. Which of the following tools would be most appropriate for collecting data to study the symptoms of a problem?
  - (A) A check sheet
  - (B) A flow diagram
  - (C) A force field analysis
  - (D) An activity network diagram

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9. Groupthink can be best described as
- (A) building synergy within the team
  - (B) focusing on reaching any decision rather than the best decision
  - (C) orienting new members about group norms and expectations
  - (D) providing training in group decision-making
10. The “check” step of the plan-do-check-act (PDCA) cycle requires the team to
- (A) determine the cause and implement the change
  - (B) observe the effects of the change
  - (C) make the change and repeat the test
  - (D) decide what change would improve the process the most
11. Which of the following is the best definition of a flowchart?
- (A) A diagram used to structure ideas into useful categories
  - (B) An illustration used to analyze variation in a process
  - (C) A picture used to separate steps of a process in sequential order
  - (D) An analytical tool used to clarify opposing aspects of a desired change
12. Which of the following describes the Deming method for continuous improvement?
- (A) Cost of quality analysis
  - (B) Process map
  - (C) Tree diagram
  - (D) Plan-do-check-act cycle
13. Which of the following methods is used to develop an exhaustive list of ideas about a subject?
- (A) Goal-setting
  - (B) Brainstorming
  - (C) Benchmarking
  - (D) Problem-solving
14. One benefit of quality is that a reduction in errors can result in increased
- (A) dispersion
  - (B) down-time
  - (C) cost savings
  - (D) employee turnover
15. Which of the following tools is most likely to be used to organize a list of ideas generated during a brainstorming session?
- (A) Activity network diagram
  - (B) Affinity diagram
  - (C) Histogram
  - (D) Process control chart
16. The facilitator for a quality improvement team should have which of the following characteristics?
- (A) Previous experience in the process, procedures, controls, and job instructions being investigated by the team
  - (B) Previous experience as a consultant from outside the company
  - (C) An in-depth understanding of process improvement tools and experience in implementing them
  - (D) The authority to resolve team impasses
17. Which of the following is NOT necessary for team effectiveness?
- (A) The team’s purpose is clearly understood and supported by all members.
  - (B) The team is accountable for specific measurable outcomes.
  - (C) A process exists for establishing goals and objectives.
  - (D) Company management directly participates as a team member.

18. A type of line graph used to assess the stability of a process is called a
- (A) control chart
  - (B) Pareto chart
  - (C) check sheet
  - (D) cause and effect diagram
19. The process of delegating decision-making authority to lower levels within the organization is the definition of
- (A) diversity
  - (B) empowerment
  - (C) involvement
  - (D) commitment
20. Rank order, from first to last, the following steps in the continuous improvement process.
1. Reduce variation
  2. Streamline the process
  3. Understand the process
  4. Error proof the process
- (A) 2, 1, 4, 3
  - (B) 2, 3, 1, 4
  - (C) 3, 2, 1, 4
  - (D) 3, 4, 2, 1
21. The best way for a timekeeper to help a team is to
- (A) keep minutes of the meeting and record how much time was spent on each agenda item
  - (B) keep track of time during the meeting and alert the team when allocated time is almost up
  - (C) police the team agenda and let team members know when discussions must end
  - (D) let team members know when too much time has been spent on a topic and has prevented the team from completing its work
22. The inspection and testing of finished product should be classified as which of the following costs of quality?
- (A) Appraisal
  - (B) Prevention
  - (C) Internal failure
  - (D) External failure
23. Which of the following is defined as a set of functions or activities that work together for the benefit of the organization?
- (A) Process capability
  - (B) Process goals
  - (C) System
  - (D) Management
24. In preparation for construction of a cause and effect diagram, it is important to
- (A) plot separate charts for each source
  - (B) focus on problem outcomes
  - (C) brainstorm ideas
  - (D) validate possible root causes
25. A project team is best described as a team that
- (A) shares responsibility for completing a whole piece of work
  - (B) monitors and controls a work process from start to finish
  - (C) shares management responsibilities
  - (D) is temporary in nature and has a specific focus

**END OF EXAM**

**IF YOU FINISH BEFORE TIME IS CALLED, YOU MAY GO BACK AND CHECK YOUR WORK ON THIS TEST.**

**APPENDIX A: Answer Sheet**

For each sample test question, the correct answer is provided below along with the area of the body of knowledge (BOK) that the item is classified to. This sample examination is not intended to represent all areas of the BOK but to provide a sampling from each major topic area. All ASQ examinations are based on the BOK for that particular exam. To view the BOK for CQIA, please go to <http://www.asq.org/certification/quality-improvement-associate/bok.html>

Question	BOK	Correct Answer
1	III.D.	B
2	I.C.1	D
3	III.D.	A
4	I.A.1	B
5	III.A.	A
6	II.C.3	C
7	I.C.2	C
8	III.D.	A
9	II.C.4	B
10	III.B.	B
11	III.D.	C
12	III.B.	D
13	III.D.	B
14	I.B.	C
15	III.D.	B
16	II.B.	C
17	II.C.4	D
18	III.D.	A
19	I.A.3	B
20	III.B.	D
21	II.B.	B
22	III.D.	A
23	I.A.4	C
24	III.D.	C
25	II.A.2	D

**APPENDIX B: Analyzing Body of Knowledge (BOK) Content**

The following worksheet can be used to help you analyze the results of your answers on this sample examination. It can be used to determine which areas of the body of knowledge (BOK) you may want to study.

After learning which sample test questions you had correct, total the number you had correct and enter that number into the 2<sup>nd</sup> column of the worksheet. The 3<sup>rd</sup> column provides the total number of test questions that are in this sample examination for that major area of the BOK. The last column provides the total number of test questions that appear in a formal ASQ examination for that area of the BOK.

<b>BOK Topic Area</b>	<b>Total You Had Correct on Sample Exam</b>	<b>Total in the Sample Exam</b>	<b>Total in Formal ASQ Exam</b>
I. Quality Basics		6	25
II. Teams		6	25
III. Continuous Improvement		13	50
<b>GRAND TOTAL</b>		<b>25</b>	<b>100</b>