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**THE  
QUALITY PROCESS ANALYST  
SOLUTION TEXT**

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**WITH A LITTLE HELP FROM MY FRIENDS.**

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## **Acknowledgments**

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**We would appreciate any comments regarding improvement and errata. It is our concern to be accurate.**

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## SECTION II

### QUALITY CONCEPTS - TEST QUESTIONS

- 2.1. Which of the following is the best reason for a product quality audit?
- To identify hardware deficiencies
  - To initiate corrective action
  - For disciplinary control
  - To assess product or service quality

Solution: A product quality audit is conducted to evaluate products and services in order to detect deficiencies and initiate preventative action.

Disciplinary control should not be part of an audit program.

**Answer d is correct.**

Reference: *CQPA Primer*, Section II - 32/34.

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- 2.2. The limitations of a quality cost system include which of the following items?
- It aligns quality and company goals
  - It provides a prioritization system for the allocation of resources
  - It doesn't resolve specific quality problems
  - It provides a manageable overview of quality

Solution: Quality cost systems should help align quality and company goals (Answer **a**). They provide an overview of quality (Answer **d**) and help to prioritize resources (Answer **b**). A cost system does not resolve specific quality problems and is a limitation.

**Answer c is correct.**

References: *CQPA Primer*, Section II - 28. This question has been modified from an old published CQE exam.

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- 2.3. Which of the following items are part of ASQ's code of ethics?
- Avoiding all real and potential conflict of interest areas**
  - Participating in many professional societies**
  - Acknowledging the work of others**
  - Taking credit for the work of others**

Solution: Answer **c** is clearly addressed in the ASQ code. Answer **b** is not addressed. The opposite of answer **d** is spelled out. Answer **a** is tough. All real and potential conflicts of interest may be impossible to avoid but should be divulged.

**Answer c is correct.**

References: *CQPA Primer*, Section II - 3 and ASQ's Code of Ethics.

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## SECTION II

### QUALITY CONCEPTS - TEST QUESTIONS

2.4. When initiating a TQM effort the most desirable initial step would be:

- a. Develop a quality policy
- b. Establish a quality council
- c. Establish strategic quality goals
- d. Train for internal audits

Solution: This question presents a list of quality planning elements. Not all of the appropriate steps are listed, but a sequence can be developed. The chain of events must follow some structure. Per Juran (1992), a quality council (**b**) needs to start the process, followed by a quality policy (**a**), establishment of strategic quality goals (**c**) and training for quality audits (**d**).

**Answer b is correct.**

References: *CQPA Primer*, Section II - 10/13. Juran, J. M. (1992). *Juran on Quality by Design*. New York: Free Press.

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2.5. Which of the following is the most reliable source of audit evidence?

- a. Physical observation of activities by at least two independent sources
- b. Physical examination of documentation and observation of corresponding activities
- c. A combination of written and oral responses from auditee personnel to checklist questions
- d. Examination of the key documents that are identified in the standard or contract being audited

Solution: The key question phrase is "most reliable source". Answer **b** is the best choice since it contains both a review of documentation and activities. Answer **a** focuses on activities only. Answer **d** concentrates on documentation. Answer **c** depends upon what the checklist questions are. Additionally, there is no indication with answer **c** that a physical examination of corresponding activities will take place.

**Answer b is correct.**

Reference: *CQPA Primer*, Section II - 38/39.

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2.6. ISO/TS 16949 is:

- a. A version of ISO 9001 that pertains to environmental management systems
- b. A joint modification of ISO 9001 by the North American Automotive industry
- c. A version of ISO 9001 that pertains to the chemical industry
- d. A version of ISO 9001 that pertains to service companies

Solution: ISO/TS 16949 is a standard for the North American automotive industry developed by General Motors, Ford, and Chrysler. All of ISO 9001 is included, with some additional requirements.

**Answer b is correct.**

Reference: *CQPA Primer*, Section II - 14.

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## SECTION II

### QUALITY CONCEPTS - TEST QUESTIONS

- 2.7. Which of the following statements can be correctly made about the quality profession relative to ASQ's Code of Ethics?
- Ethics are practiced but not formalized
  - Public knowledge of quality is discouraged
  - Potential conflicts of interest must be divulged
  - Only the public's welfare is considered

Solution: Answer **a** is incorrect. Ethics are both practiced and formalized via the ASQ Code of Ethics. Professional development is encouraged not discouraged (making answer **b** incorrect). The welfare of the public, employers, customers, and clients are considered (making answer **d** incorrect).

**Answer c is correct.**

References: *CQPA Primer*, Section II - 3 and ASQ's Code of Ethics.

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- 2.8. Which of the following is the best definition of configuration management?
- The collection of all product related information and activities
  - A documentation system
  - A change order, record keeping system
  - A product manufacturing plan

Solution: Configuration management requires documentation, but it is more than just documentation. Changes are a part of the system, but other information is also needed. Answer **d** is also an incomplete answer. Configuration management will manage the evolution of a product from development to final product retirement.

**Answer a is correct.**

References: *CQPA Primer*, Section II - 22/24. Juran, J.M. (1999). *Juran's Quality Control Handbook*, 5th ed. New York: McGraw-Hill.

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- 2.9. Which of the following incomplete list of major audit activities would come first?
- Executing the audit
  - Following-up on corrective action
  - Audit report distribution
  - Planning the audit

Solution: The audit process begins with planning.

**Answer d is correct.**

Reference: *CQPA Primer*, Section II - 37/41.

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## SECTION II

### QUALITY CONCEPTS - TEST QUESTIONS

2.10. Assume that the cost data available for a certain period are limited to the following:

- \$20,000 - final test
- 350,000 - field warranty costs
- 170,000 - reinspection and retest
- 45,000 - inventory reduction
- 4,000 - vendor quality surveys
- 30,000 - rework

The total of the quality cost is:

- a. \$619,000
- b. \$621,000
- c. \$574,000
- d. \$576,000

Solution: This question requires a computation of quality costs. The one item that cannot be considered a quality cost is inventory reduction. It could be that the inventory reduction occurred because of customer order cancellations, downtime on a key piece of equipment, or anticipation of a summer shut-down.

Totaling the other items results in a figure of \$574,000.

**Answer c is correct.**

References: *CQPA Primer*, Section II - 24/27. This question has been modified from an old published CQE exam and CQE brochure.

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2.11. The principal purpose of a policy statement concerning quality is:

- a. Definition of the company's interest in the quality of their products
- b. Assignment of quality responsibilities
- c. Clarification of quality related words and phrases
- d. Description of basic quality oriented operating procedures

Solution: The key question phrase is "principal purpose." This question deals with a policy statement. Answers **b**, **c**, and **d** are somewhat restrictive and tend to address the objectives of lower level quality procedures. A quality policy statement details the company's interest, support and commitment to quality.

**Answer a is correct.**

Reference: *CQPA Primer*, Section II - 8/10.