# CSTE
## CERTIFIED SOFTWARE TESTER

# CSTE
### Certified Software Tester

*As the IT industry becomes more competitive, the ability for management to distinguish professional and skilled individuals in the software testing field becomes mandatory. Certification demonstrates a professional level of understanding of software testing principles and practices.*

*Acquiring the designation of Certified Software Tester (CSTE) indicates a professional level of competence in the principles and practices of software testing in the IT profession. CSTEs become members of an acclaimed professional group, receiving recognition of their competence by business and professional associates, are afforded potentially more rapid career advancement and greater acceptance as a management advisor.*

## Program History

Quality Assurance Institute (QAI) was established in 1980 as a professional association formed to represent the software quality assurance industry. The first certification began development in 1985 and the first formal examination process was launched in 1990. Today, Software Certifications, administered by QAI, is global. Since its inception, Software Certifications has certified over 35,000 IT professionals in 43 countries on 6 of the 7 continents in the world.

## Objectives and Benefits of Certification

The Certified Software Tester program is intended to establish standards for initial qualification and continuing improvement of professional competence. This certification program helps to:

1.  Define the tasks (skill categories) associated with software testing duties in order to evaluate skill mastery.
2.  Demonstrate an individual's willingness to improve professionally.
3.  Acknowledge attainment of an acceptable standard of professional competency.
4.  Aid organizations in selecting and promoting qualified individuals.
5.  Motivate personnel having software testing responsibilities to maintain their professional competency.
6.  Assist individuals in improving and enhancing their organization's software testing programs.

### Mission Statement

*To support the needs of information technology testing practitioners by providing certification of their professional development as they evolve over the course of their careers from entry-level novice to recognized and mature masters of their respective disciplines.*

## Code of Ethics

A distinguishing mark of a profession is the acceptance of responsibility by its members to the interests of those it serves. Those certified must maintain high standards of conduct in order to effectively discharge their responsibility.

An applicant for certification must subscribe to the Software Certifications Code of Ethics that outlines the ethical behaviors expected of all certified professionals. Software Certifications programs include processes and procedures for monitoring certificant adherence to these policies. Failure to adhere to the requirements of this code is grounds for decertification.

## Software CERTIFICATIONS

**The Software Certifications Program is Proudly Administered by the Quality Assurance Institute.**

# SOFTWARE CERTIFICATIONS

## *Prerequisites*

To qualify for candidacy, each applicant must meet <u>one</u> of these four prerequisites:

1. A 4 year degree from an accredited college-level institution and 2 years experience in the information services field
2. A 3 year degree from an accredited college-level institution and 3 years experience in the information services field
3. A 2 year degree from an accredited college-level institution and 4 years experience in the information services field
4. Six years of experience in the information services field

**AND**

Are working, or have worked at any time within the prior 18 months, in the field covered by the certification designation

Depending upon a compliance sample selected according to program criteria, the applicant may be required to provide detailed education and/or employment documentation supporting the prerequisite option selected on the application. If selected for verification, the applicant must supply the documentation to the program. Applicants who fail to provide the requested documentation will not be allowed to sit for the exam or, if the exam has been taken and passed, may be subject to de-certification.

## *Certification Candidacy/Application Process*

Individuals applying for the CSTE Certification Candidacy must submit:
1. A completed on-line Certification Candidacy Application via the Customer Portal on the Software Certifications web site, www.softwarecertifications.org.
2. A $350 (USD) non-refundable, non-transferable fee (payable by check or credit card).

A completed Certification Candidacy Application must be submitted via the Customer Portal on the Software Certifications web site for entrance as a candidate for any particular certification. This application should only be submitted by individuals who:

- Are working, or have worked at any time within the prior 18 months, in the field covered by the certification designation
- Have significant experience and breadth of knowledge to have mastered the basics of the entire Software Testing Common Body of Knowledge
- Have reviewed the Software Testing Common Body of Knowledge

> **Application Fee:**
> *$350.00 USD*

## *Examination*

In 2008, Software Certifications selected Prometric, a world leader in assessment testing services, as its partner for the administration of certification examinations. Prometric's international network of testing centers provides the framework needed to support Software Certifications' global needs. This partnering will allow candidates to easily schedule their exam via the Internet and take it at a Prometric Testing Center in or outside of the United States. However, some global locations will remain paper-based (Sponsored Exams) and delivered on a quarterly basis – please refer to the Software Certifications web site for specific location details.

**NOTE: All candidates must first register to take the certification examination through the Software Certifications Customer Portal (www.softwarecertifications.org). Once registered, those in the areas serviced by Prometric will, after a mandatory 72 hour waiting period, receive a Prometric Exam Code. Only then can candidates schedule their exam with Prometric. Candidates can not schedule their exam at Prometric without first registering with Software Certifications.**

Candidates for certification must pass a four-part examination which includes multiple-choice, essay, and short answer items in order to obtain certification. The four hour examination tests the candidate's knowledge and practice of the skill areas defined in the Software Testing Common Body of Knowledge. Candidates must attempt the exam at least once in the first twelve months after applying. Those who do not successfully pass the examination may retake the examination up to two times by submitting the on-line retake application and paying all required fees. Subsequent additional examination efforts require reinitiating the entire application process.

Technical knowledge becomes obsolete quickly; therefore, the board has established these eligibility guidelines. The goal is to test on a consistent and comparable knowledge base worldwide. The eligibility requirements have been developed to encourage candidates to prepare and pass all portions of the examination in the shortest time possible.

# Software Testing
# Common Body of Knowledge

**CSTE**
**Certified Software Tester**

## Skill Categories

1. **Software Testing Principles and Concepts** - This skill category focuses on the "basics" of software testing as represented by the vocabulary of testing, testing approaches, methods and techniques as well as the materials used by testers in performing their test activities.

2. **Building the Test Environment** - The test environment is comprised of all the conditions, circumstances, and influences surrounding and affecting the testing of software. This category's discussions include assuring the test environment fairly represents the production environment to enable realistic testing to occur.

3. **Managing the Test Project** - Software testing is a project with almost all the same attributes as a software development project. This category discusses project planning, project staffing, scheduling and budgeting, communicating, assigning and monitoring work and ensuring that changes to the project plan are incorporated into the test plan.

4. **Test Planning** - This skill category explores the skills testers need to plan tests, including the selection of techniques and methods to be used to validate the product against its approved requirements and design. Test planning assesses the software application risks, and then develops a plan to determine if the software minimizes those risks. Testers must understand the development methods and environment to effectively plan for testing.

5. **Executing the Test Plan** - The test plan should be executed as designed. If the plan cannot be executed as designed it should be changed, or notations made as to what aspects of the plan were not performed. Testing according to the test plan should commence when the project commences and conclude when the software is no longer in operation. Portions of the test plan can be performed while the test plan is being written. This category focuses on the many skills needed to carry out the test plan, like design test cases and test scripts, use test tools, execute tests, record test results, and manage defects.

6. **Test Status, Analysis and Reporting** - In this category, the tester's ability to develop testing status reports is discussed. These reports should show the status of the testing based on the test plan. Reporting should document what tests have been performed and the status of those tests. The test reporting process is a process to collect data, analyze the data, supplement the data with metrics, graphs and charts and other pictorial representations which help the developers and users interpret that data. The lessons learned from the test effort should be used to improve the next iteration of the test process.

7. **User Acceptance Testing** - As much as possible, once the acceptance criterion has been established, they should be integrated into all aspects of development. This category discusses how the same process can be used by software testers when users are unavailable for test; when diverse users use the same software; and for beta testing software. Although acceptance testing is a customer and user responsibility, testers normally help develop an acceptance test plan, include that plan in the system test plan to avoid test duplication; and, in many cases, perform or assist in performing the acceptance test.

8. **Testing Software Developed by Outside Organizations** - This skill category reviews the many challenges faced when testing software developed by a contractor, or an external organization. It is management's responsibility that acquired software meets the needs of their organization. Contractors will test the software they build, but that does not relieve management from their quality responsibilities.

9. **Testing Software Controls and the Adequacy of Security Procedures** - This category's discussions focus on testing internal control as it is a key issue for software testers Security is a component of internal control that warrants special attention of testers. Interest in internal control has been highlighted by publicized penetrations of security and the increased importance of information systems and the data contained by those systems.

10. **Testing New Technologies** - Testers require skills in their organization's current technology, as well as a general understanding of the new information technology that might be acquired by their organization. The new technology skills are required because the test plan needs to be based on the types of technology used. This skill category addresses why new IT technology, as well as any technology new to the testers or the organization must be addressed in the test plan.

*For a more detailed explanation of each category, visit the Software Certifications web site at www.softwarecertifications.org.*

**Software CERTIFICATIONS**

## Recertification

The Software Certifications Board strives to maintain the highest degree of integrity within Software Certifications. To maintain this integrity, a certificant must maintain a current knowledge base of quality principles, practices, and technical knowledge as the information technology industry advances and technologies become obsolete. By requiring that the certificant maintain and increase their level of competency through various avenues of education and activity, the board is assured that the certification standards of integrity are being met and the value of the certification designation is being maintained.

To assure that the certificant is maintaining knowledge and skills that are state-of-the-art in the field, the certificant must demonstrate continuing professional education (CPE) activities. This may be done by:

- Submitting a Recertification Journal of qualified Continuing Professional Education activities

**or**

- Taking an Examination for Recertification to demonstrate your competence and skill in the certification competency domains.

### Other Certifications

**Certified Associate in Software Quality (CASQ)**

**Certified Associate in Software Testing (CAST)**

**Certified Software Quality Analyst (CSQA)**

**Certified Software Project Manager (CSPM)**

**Certified Software Business Analyst (CSBA)**

**Certified Manager of Software Quality (CMSQ)**

**Certified Manager of Software Testing (CMST)**

*Please visit:*
*www.softwarecertifications.org*
*for more information regarding other certifications.*

## Frequently Asked Questions

### What is the fee for certification?
The initial fee for CSTE certification is $350 USD. This includes the application processing fee, administration fee, and your initial sitting fee. The fee also includes a downloadable version of the Software Testing Common Body of Knowledge via the Customer Portal on the Software Certifications web site. If you sit for the exam the first time within twelve months of applying and do not receive passing marks, there is an additional fee of $100 USD for each retake exam (limit two).

### What is the exam format?
The four hour exam is made up of four sections; two parts multiple-choice and two parts essay and short answer. You will have forty-five minutes to complete each of the multiple-choice sections and one hour and fifteen minutes to complete each of the essay and short answer sections. There is a ten-minute break between each section.

### How do I study for the exam?
There is no specific outline of study curriculum established by Software Certifications. Candidates are responsible for their own study and preparation. The Quality Assurance Institute, as administrator of Software Certifications, does not infer that attending specific courses or programs will significantly enhance the candidate's chances of passing the examination. Bibliographic references are included in the Software Testing Common Body of Knowledge description for information purposes, however, candidates are expected to know and pursue other resources.

Professional certification is a significant undertaking. Sufficient time and energy should be allocated by the candidate toward preparation. Most of the needed preparation involves reviewing and brushing up on the various skill categories in the certification's respective Common Body of Knowledge. If candidates have extensive experience in the software testing practices described in the skill categories of the Common Body of Knowledge, the examination should not be difficult. Candidates should avoid last minute cramming, as it is rarely beneficial in the long term.

Software
CERTIFICATIONS

Rev. 03/08