



American Concrete Institute®

**Certification Policy  
for Certification of  
Concrete Strength Testing Technicians**

*Last revised by the Certification Programs Committee  
March 20, 2012*

The statements contained herein are a consolidation of approved policies and procedures. This policy statement supersedes all previous action of the ACI Board of Direction with respect to Concrete Strength Testing Technician certification.

The certification program policies are broken down into eight sections as follows:

- Section 1.0 Certification Criteria
- Section 2.0 Examination Criteria
- Section 3.0 Reexamination Criteria
- Section 4.0 Appeals Criteria
- Section 5.0 Sponsoring Group Criteria
- Section 6.0 Examiner/Supplemental Examiner Criteria
- Section 7.0 ACI Responsibilities
- Section 8.0 Recertification Criteria

**SECTION 1.0 CERTIFICATION CRITERIA**

- 1.1 The American Concrete Institute (ACI) certification program for Concrete Strength Testing Technician requires successful completion of a written examination and a performance examination. No certifications will be granted by ACI without successful completion of both examinations.
- 1.2 No specific education or work experience is required as a prerequisite for Concrete Strength Testing Technician certification.
- 1.3 ACI certification as a Concrete Strength Testing shall be valid for a period of five [5] years from the date all certification requirements are completed.
- 1.4 Certification is renewed by satisfying the recertification requirements.

**SECTION 2.0 EXAMINATION CRITERIA****GENERAL REQUIREMENTS**

- 2.1 The content of the written and performance examinations for certification as a Concrete Strength Testing Technician is derived from the four (4) following ASTM Standards or their equivalents:

C39/C39M	Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
C78	Standard Test Method for Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading)
C617	Standard Practice for Capping Cylindrical Concrete Specimens
C1231/C1231M	Standard Practice for Use of Unbonded Caps in Determination of Compressive Strength of Hardened Concrete Cylinders

Information contained in the footnotes and appendices of the above referenced documents shall not be subject to examination.

ACI will grant certification to examinees who successfully complete both the written and performance examinations within a one (1) year period.

- 2.2 There shall be no questions regarding general concrete technology on the written examination.
- 2.3 The examinations shall be conducted by the examiner, proctors, and/or supplemental examiners as applicable. [See Section 6.0]

- 2.4 The examiners, proctors, supplemental examiners, and/or sponsoring groups have no jurisdiction over the content of any examination or over the grading of the written examination.
- 2.5 All written and performance examinations are closed-book. Notes or other technical material will not be permitted in the examination area. Use of simple-function (*i.e.*, non-programmable) calculators will be permitted, but examinees will not be allowed to share calculators.

### **WRITTEN EXAMINATION**

- 2.6 The written examination for certification as a Concrete Strength Testing Technician shall consist of approximately thirty-five to forty [35–40] multiple choice questions, with eight to ten [8–10] questions on each ASTM Standard.
- 2.7 A maximum of one [1] hour shall be permitted for completion of the written examination.
- 2.8 Oral administration of the written examination is permitted, contingent upon prior approval in writing by the ACI Certification Department.
- 2.9 Successful completion of the written examination shall be considered as meeting both the following requirements:
  - A) Score sixty percent [60%] or higher on each individual ASTM Standard (*i.e.*, six [6] correct out of ten [10] questions); AND
  - B) Score a minimum of seventy percent [70%] for the overall examination (*i.e.*, twenty-eight [28] correct out of a possible forty [40]).

### **PERFORMANCE EXAMINATION**

- 2.10 The performance examination for certification as a Concrete Strength Testing Technician requires the examinee to perform, in their entirety, each of the following ASTM Standards: C39/C39M, C78, C617 and C1231/C1231M.
- 2.11 The examinee shall conduct the performance examination in the direct presence of the examiner or supplemental examiner(s).
- 2.12 The examinee's performance shall be evaluated based on the criteria of the performance examination checklist.
- 2.13 Grading for the individual performance examinations shall be on a pass/fail basis only, with the examiner/supplemental examiner indicating a passing or failing score for each step of the checklist.

- 2.14 Incorrect performance, or omission of one or more of the steps of the performance checklist, shall constitute failure of that trial.
- 2.15 An examinee shall be allowed a second trial for each of the applicable ASTM Standards, on the same day of the examination, if the first trial was not successfully completed.
- 2.16 The second trial of a particular test shall not be conducted immediately following the first trial.
- 2.17 An examinee shall be permitted to suspend one trial and begin the procedure over again. A voluntary suspension of a trial shall not be counted as a failure of that trial.
- 2.18 The examiner/supplemental examiner shall not stop a trial when an error is made.
- 2.19 A second trial (or voluntary repeat of a trial) shall require performance of the entire test method from the beginning of the test, not from the point the error was made or the trial was suspended.
- 2.20 Immediately following completion of each trial, the examiner/supplemental examiner shall inform the examinee of the results, either pass or fail.
- 2.21 When a failure of a trial has occurred, the examiner/supplemental examiner shall inform the examinee of the particular step(s) performed incorrectly.
- 2.22 The examinee shall be permitted to leave the examining area between trials to consult notes or books.
- 2.23 It shall be the Sponsoring Group's responsibility to provide equipment that conforms to the applicable ASTM Standards and to assure that the equipment is in good working order. The examinee shall not be penalized as a result of faulty or incorrect equipment.
- 2.24 Failure on any of the prescribed ASTM Standards after two [2] trials will constitute failure of that part of the performance examination.

### **SECTION 3.0 RE-EXAMINATION CRITERIA**

- 3.1 Failure of the written examination by either of the criteria cited under Section 2.09 shall require reexamination on the entire written examination.
- 3.2 Invalidation of the performance examination (for example non-conformance with Section 6.05) or failure on two [2] or more of the four [4] required ASTM Standards shall require reexamination on the entire performance examination.

- 3.3 Failure or invalidation of the performance examination on only one [1] of the four [4] required ASTM Standards shall require examination on only that ASTM Standard failed or invalidated.
- 3.4 Successful reexamination on the written or performance examination must be completed within one [1] year of the initial examination. Otherwise, both the written and the performance examinations must be retaken in their entireties.

#### **SECTION 4.0 APPEALS CRITERIA**

- 4.1 All appeals shall be directed initially to the examiner.
- 4.2 In the event that the examinee is not satisfied with the decision of the examiner regarding an appeal, the examinee may pursue an appeal with ACI according to the following order:
1. Local Sponsoring Group
  2. ACI Director of Certification
  3. The Certification Appeals Committee [consisting of the Director of Certification; the Chairman of the Certification Programs Committee, and the Chairman of Committee C 620]
  4. Committee C 620, Laboratory Technician Certification
  5. Certification Programs Committee
- 4.3 Appeals submitted to ACI for consideration must be received, in writing, within sixty [60] days of the receipt of the examination at ACI Headquarters.

#### **SECTION 5.0 SPONSORING GROUP CRITERIA**

Groups desiring to conduct ACI Certification program(s) shall adhere to the current Policy on Sponsoring Groups for Certification.

#### **SECTION 6.0 EXAMINER / SUPPLEMENTAL EXAMINER CRITERIA**

- 6.1 The examiner shall be approved by ACI. Qualifications shall be submitted on Form D1/D3 and shall be evaluated according to ACI-approved criteria.
- 6.2 The examiner shall be authorized by ACI to conduct the ACI certification examinations for Concrete Strength Testing Technician.
- 6.3 The examiner shall meet the following requirements:
- A) Be a registered professional engineer;
  - B) Have had at least two [2] years of recent experience in concrete construction, inspection, or testing; and
  - C) Be thoroughly familiar with the current applicable ASTM Standards.

- 6.4 Examiners, supplemental examiners, and proctors shall be unrelated professionally and personally to the examinees.
- 6.5 Examiners/supplemental examiners shall not examine anyone on the performance examination who is employed in the same organization. Governmental or other organizations may petition ACI, in writing, and request a waiver of this restriction. ACI may grant waivers, on a case by case basis, only if can be shown that the intent of the policy will be maintained.
- 6.6 Supplemental examiners shall be permitted to assist in conducting the performance examination, and may be authorized to conduct the performance examination without the direct supervision of an Examiner with prior approval of ACI Committee C 620.
- 6.7 Supplemental examiners shall satisfy the following requirements:
- A) Have recent experience in concrete testing;
  - B) Be selected and adjudged qualified by the examiner or ACI Committee C 620;
  - C) Be considered trustworthy and conscientious.
- 6.8 Proctors shall be permitted to assist the examiner in conducting the written examination.
- 6.9 Proctors shall satisfy the following requirements:
- A) Be considered trustworthy and conscientious by the Examiner.
  - B) Be selected by the Examiner.
- 6.10 The examiner shall be directly responsible for the following activities:
- A) Select the supplemental examiners and proctors, except in cases where the supplemental examiners are approved in advance by ACI Committee C 620;
  - B) Verify the qualifications of the supplemental examiners and proctors according to the criteria outlined in Section 6.4 through 6.9 of this policy;
  - C) Order examinations;
  - D) Verify the identity of each examinee, and assure that the examinees are aware of the certification criteria;
  - E) Verify that the examinees have signed the release statement on the written and performance examinations prior to testing;
  - F) Verify that the performance evaluations were conducted by approved supplemental examiners, and co-sign the performance checklists where appropriate;
  - G) Enter the appropriate grade for the completed performance examination on the checklist report;

- H) Assure that all examinees have an opportunity to take a second trial on any failed procedure of the performance examination; and
  - I) Shall not define terms or interpret examination questions during the course of the written examination.
- 6.11 Examiners or supplemental examiners shall not observe more than one examinee conducting tests at any one time during the performance examination.
- 6.12 The examination sessions must be supervised constantly by the examiner, supplemental examiner(s) and/or proctor(s).

#### **SECTION 7.0 ACI DUTIES AND RESPONSIBILITIES**

- 7.1 ACI shall approve the local sponsoring group.
- 7.2 ACI shall authorize the local sponsoring group to conduct examining sessions for Concrete Strength Testing Technician certification.
- 7.3 ACI shall approve the examiner.
- 7.4 ACI shall grade the written examinations and review the performance examination, and notify the examinee, examiner and the Local Sponsoring Group of the final results in writing.
- 7.5 ACI shall authorize the issuance of certificates to examinees who have satisfied the certification requirements.
- 7.6 ACI shall certify the examinees who have satisfied the certification requirements.
- 7.7 ACI shall issue a certificate and identification card to successful examinees.
- 7.8 ACI shall keep all written exam scores confidential, unless authorized in writing by the examinee.

#### **SECTION 8.0 RECERTIFICATION CRITERIA**

Recertification as a Concrete Strength Testing Technician requires successful completion of the then current certification requirements outlined in Sections 1.0, 2.0 and 3.0 of this policy.