

**CERTLABZ****CERTIFICATION BOARD****CSCE-001**

Certified Smart Contract Engineer (CSCE)

Exam Objectives CSCE-001

About the exam

Item	Detail
Level	Advanced
Number of questions	120. A performance-based exam: each form can carry up to 5 to 12 performance-based questions alongside the multiple-choice questions.
Delivery model	Computer adaptive in 3 stages of 42, 39, 39 questions. Your score on each stage selects the difficulty of the next, so no two candidates sit the same paper.
Time limit	180 minutes
Scoring	You need a score of 700 out of 900 to pass. Results are reported on a scale of 100 to 900, and 700 corresponds to answering 72% of the exam correctly. Harder questions carry more weight, so a score means the same thing on any route. Multiple-response items and PBQs are scored all or nothing.
Delivery	Online, fully proctored (webcam, microphone and screen).
Prerequisites	No formal prerequisite. Candidates do best with software development experience and 50 to 80 hours of study.
Retakes	No waiting period after a failed first attempt. Candidates pay the exam price each time they attempt the exam. See the CertLabz Certification Retake Policy at certlabz.com/certification-retake-policy.html
Validity	3 years. Renew with 75 CEUs per cycle and the \$55 annual continuing-education fee, or by passing the current exam.
Language	English
Exam voucher	\$199 for one sitting, valid 12 months. Bundles add the study guide ebook and the All Access plan.

Domain weights

Domain	Questions
D1 Smart Contract Foundations (16%)	19
D2 Contract Development (16%)	19
D3 Standards and Patterns (17%)	21

D4 Testing and Tooling (17%)

	21
D5 Security and Common Vulnerabilities (17%)	20
D6 Gas, Deployment and Operations (17%)	20
Total (100%)	120

Objectives by domain

Each objective may appear as knowledge, a scenario to judge, a circuit to trace or assemble, or a number to compute. Each form can carry up to 5 to 12 performance-based questions: drag-and-drop matching, sequencing and table completion, drawn fresh each attempt. The exam does not test any vendor's SDK syntax.

D1 Smart Contract Foundations

16% 19 questions

- D1.1 The EVM model
- D1.2 Accounts and transactions
- D1.3 Gas and fees
- D1.4 Contract lifecycle
- D1.5 State and storage
- D1.6 Calls versus transactions

D2 Contract Development

16% 19 questions

- D2.1 Types and variables
- D2.2 Functions and visibility
- D2.3 Modifiers and events
- D2.4 Inheritance
- D2.5 Storage versus memory
- D2.6 Errors, require and revert

D3 Standards and Patterns

17% 21 questions

- D3.1 Fungible token standards
- D3.2 Non-fungible token standards
- D3.3 Access control patterns
- D3.4 Proxy and upgradeable patterns
- D3.5 Factory pattern
- D3.6 Pull over push payments

D4 Testing and Tooling

17% 21 questions

- D4.1 Unit testing
- D4.2 Fuzz testing
- D4.3 Local test networks
- D4.4 Deployment scripts
- D4.5 Gas reporting
- D4.6 Source verification

D5 Security and Common Vulnerabilities

17% 20 questions

- D5.1 Reentrancy
- D5.2 Integer overflow and underflow
- D5.3 Access-control flaws
- D5.4 Oracle manipulation
- D5.5 Unchecked external calls
- D5.6 Checks-effects-interactions

D6 Gas, Deployment and Operations

17% 20 questions

- D6.1 Gas optimization
- D6.2 Safe upgrades and migrations
- D6.3 Testnet and mainnet deployment
- D6.4 Monitoring
- D6.5 Incident response
- D6.6 Immutability tradeoffs

Continuing education

Renewal	Requirement
Validity	3 years from the date of issue
CEUs required per cycle	75
Annual CE fee	\$55
Alternative to CEUs	Pass the current version of the exam before the expiry date

Qualifying activities

Activity	CEUs
CertLabz labs, PBQs, courses and SkillTracker assessments	1 CEU per hour, up to 25 per cycle
Other industry certifications earned or renewed	10 to 25 each, depending on level
Conferences, webinars and training	1 CEU per hour, up to 20 per cycle
Blockchain, Web3 or software work experience	3 per year, up to 9 per cycle
Teaching, mentoring, publishing or open-source contributions	Up to 15 per cycle
College courses in computing or data	10 per completed course

CertLabz Certification Retake Policy

- **No waiting period after a failed first attempt:** If you fail your first attempt at any CertLabz certification examination, CertLabz does not require any waiting period between the first and second attempt.
- **Once you pass, you cannot resit the same exam code:** A candidate who has passed an exam and achieved a certification cannot take that exam again under the same exam code without prior consent from CertLabz. You will need to wait until a new series of the exam is published before attempting to recertify by examination.
- **Beta examinations, one attempt only:** A CertLabz beta examination may be taken one time by each candidate.
- **Violations invalidate the attempt:** A test found to be in violation of this policy will be invalidated, and the candidate may be subject to a suspension period. Repeat violators will be permanently banned from the CertLabz Certification Program.
- **Every attempt is paid for:** Candidates must pay the exam price each time they attempt the exam. CertLabz does not offer free retests or discounts on retakes.

Published by the CertLabz Certification Board, a division of CertLabz LLC. Objectives document CSCE-001.
<https://certlabz.com/certifications/certified-smart-contract-engineer.html>