

**CERTLABZ****CERTIFICATION BOARD****CDLE-001**

Certified Deep Learning Engineer (CDLE)

Exam Objectives CDLE-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 one to two years of ML or software experience and 60 to 100 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 Neural Network Foundations (16%)	19
D2 Training Deep Networks (16%)	19
D3 Architectures (17%)	21

D4 Regularization, Tuning and Evaluation (17%)

	21
D5 Frameworks, Hardware and Deployment (17%)	20
D6 Generative, Transfer Learning and Responsible DL (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 Neural Network Foundations

16% 19 questions

- D1.1 Neurons, layers, weights and biases
- D1.2 Activation functions and non-linearity
- D1.3 Loss functions and the forward pass
- D1.4 Deep versus classical ML
- D1.5 Data needs and overfitting
- D1.6 Epochs, output layers and compute

D2 Training Deep Networks

16% 19 questions

- D2.1 Backpropagation and gradient descent
- D2.2 Learning rate and batch size
- D2.3 Vanishing and exploding gradients
- D2.4 Batch normalization and initialization
- D2.5 Optimisers and schedules
- D2.6 Monitoring train and validation curves

D3 Architectures

17% 21 questions

- D3.1 CNNs for images
- D3.2 RNNs, LSTMs and GRUs for sequences
- D3.3 Transformers and self-attention
- D3.4 Autoencoders and embeddings
- D3.5 Matching architecture to data
- D3.6 Foundation models

D4 Regularization, Tuning and Evaluation

17% 21 questions

- D4.1 Overfitting and dropout
- D4.2 Early stopping and weight decay
- D4.3 Data augmentation
- D4.4 Hyperparameter tuning
- D4.5 Validation versus test sets
- D4.6 Honest metrics and variability

D5 Frameworks, Hardware and Deployment

17% 20 questions

- D5.1 Frameworks and automatic differentiation
- D5.2 GPUs and mixed precision
- D5.3 Quantization, pruning and distillation
- D5.4 Distributed training and memory
- D5.5 Portable export and serving patterns
- D5.6 Preprocessing parity and monitoring

D6 Generative, Transfer Learning and Responsible DL

17% 20 questions

- D6.1 Transfer learning and fine-tuning
- D6.2 Generative models and LLMs
- D6.3 Inherited bias and mitigation
- D6.4 Generative safety and guardrails
- D6.5 Data provenance and privacy
- D6.6 Human oversight and documentation

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
Deep learning, ML 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, mathematics or engineering	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.

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<https://certlabz.com/certifications/certified-deep-learning-engineer.html>