



CONTRACTORS STATE LICENSE BOARD  
LICENSE EXAMINATION STUDY GUIDE



**ELECTRICAL (C-10)**

**Content of the Examination**

The Electrical (C-10) Examination is divided into five major sections:

- 1. Planning and Estimating (26%)**
  - Existing system evaluation
  - Plan and specification interpretation
  - Electrical calculations
  - Code requirements
  - Material selection
  - Photovoltaic project planning
- 2. Rough Wiring (24%)**
  - System layout
  - Clearance and accessibility requirements
  - Raceway and panel installation
  - Wire and equipment installation
  - Grounding and bonding
  - Photovoltaic rough wiring
- 3. Finish Wiring and Trim (11%)**
  - Finish device placement and installation
  - Motor and equipment installation
  - Wire and equipment labeling
  - Trims and sealants
  - Photovoltaic finish wiring
- 4. Startup, Troubleshooting and Maintenance (21%)**
  - System energizing and testing
  - Common electrical problems
  - Location, repair, and replacement of inoperable electrical wires/components
  - Selection and use of electrical testing equipment
  - Photovoltaic system performance

**5. Safety (18%)**

- Lockout/tagout procedures
- Personal protective equipment (PPE)
- Tools/equipment
- Hazardous materials and job site environments

*\*Percentages are approximate\**

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**Test Site Policy**

This is a closed-book examination. No reference materials may be used during the examination. All materials brought to the examination site must be left in an unmonitored area at your own risk.

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**Test Strategy**

This is a multiple-choice examination with four choices per question. Some questions require mathematical computation. Examination questions are written to provide only one BEST answer and are NOT written as trick questions.

There is no penalty for guessing. If you are unsure about a particular question, it is better to try to answer the question than to leave the question blank.

Plenty of time is provided to answer all examination questions, so be sure to read each question and its four choices completely and carefully before selecting the BEST possible answer to the question.

## Sample Questions

Below are three typical examination questions. The correct answer is marked with "➡."

1. In Class 1, Division 2 locations, such as gas stations or refineries, what type of conduit should be used above ground?  
➡ a. Intermediate metal conduit or rigid conduit  
b. Electrical metallic tubing  
c. Electrical metallic tubing or flexible metallic tubing  
d. Polyvinyl chloride conduit
2. Which of the following regulations applies to service-entrance conductors that are supplying service to a building or structure?  
➡ a. The conductors may not pass through the interior of another building or structure.  
b. The conductors are permitted if the buildings or structures are close together.  
c. The conductors are only permitted when approved construction drawings show the conductor routing.  
d. The conductors are only permitted when service cannot be installed in any other way.
3. A contractor needs 13 receptacles that cost \$3.56 each plus sales tax of 7.25%. The supplier states that for every 10 receptacles that are purchased, the contractor will get one free of charge. What is the total cost of the receptacles?  
➡ a. \$42.02  
b. \$42.72  
c. \$45.82  
d. \$49.66

*\*All questions are written and reviewed by licensed contractors who are actively working in the field\**

## Resources

*Publisher information for reference books and code is provided below. Other sources for reference books may be found online. California code books can be viewed online:*

*<https://law.resource.org/pub/us/code/bsc.ca.gov/>*

**American Electrician's Handbook.** The McGraw-Hill Companies.  
PHONE: (877) 833-5524  
INTERNET: [www.mhprofessional.com](http://www.mhprofessional.com)

**2013 California Building Code.** California Code of Regulations, Title 24. International Code Council.  
PHONE: (800) 786-4452  
INTERNET: [www.iccsafe.org](http://www.iccsafe.org)

**2013 California Electrical Code.** California Code of Regulations, Title 24. BNI Publications, Inc.  
PHONE: (888) 264-2665  
INTERNET: [www.bni-books.com](http://www.bni-books.com)

**2013 California Energy Code.** California Code of Regulations, Title 24. International Code Council.  
PHONE: (800) 786-4452  
INTERNET: [www.iccsafe.org](http://www.iccsafe.org)

**2013 California Fire Code.** California Code of Regulations, Title 24. International Code Council.  
PHONE: (800) 786-4452  
INTERNET: [www.iccsafe.org](http://www.iccsafe.org)

**State of California General Industry & Electrical Safety Orders (Cal/OSHA) and State of California Construction Safety Orders (Cal/OSHA). 2012.** California Code of Regulations, Title 8. Mancomm.  
PHONE: (877) 626-2666  
INTERNET: [www.mancomm.com](http://www.mancomm.com)  
VIEW ONLINE:  
[www.dir.ca.gov/dosh/LawAndRegulations.htm](http://www.dir.ca.gov/dosh/LawAndRegulations.htm)

*\*Publisher information is current as of 2/2015\**