



**CONTRACTORS STATE LICENSE BOARD
LICENSE EXAMINATION STUDY GUIDE**



ORNAMENTAL METAL (C-23)

Content of the Examination

The Ornamental Metal (C-23) Examination is divided into five major sections:

- 1. Planning and Estimating (25%)**
 - Review project information
 - Design ornamental metal products
 - Site evaluation
 - Fabrication preparation
 - Cost calculation
- 2. Fabrication (23%)**
 - Cutting
 - Tooling
 - Forming metal
 - Assembly
- 3. Installation (18%)**
 - Posts
 - Fences, railings, and gates
 - Staircases
 - Miscellaneous products
- 4. Finishes and Repairs (12%)**
 - Preparation and application
 - Repairs
- 5. Safety (22%)**
 - Personnel and job site
 - Transportation
 - Environmental

Percentages are approximate

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.

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. Which fabrication technique should NOT be used when welding a square iron frame?
 - a. Tack all joints before completely welding.
 - ➡ b. Completely weld one joint first.
 - c. Measure from corner to corner.
 - d. Clamp every piece first.
2. If an architectural drawing gives a scale of 1/8" = 1', what does a line 2-1/4" equal?
 - a. 10'6"
 - b. 17'6"
 - ➡ c. 18'0"
 - d. 24'8"
3. According to the California Building Code, how is headroom clearance measured on a standard stairway?
 - a. Vertically from the center of each tread
 - ➡ b. Vertically from a line connecting the nosings
 - c. From the bottom of and parallel to the first riser
 - d. Perpendicularly from a line connecting the nosings

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: www.bsc.ca.gov***

2013 California Building Code. California Code of Regulations, Title 24, Part 2. International Code Council.
PHONE: (800) 786-4452
INTERNET: www.iccsafe.org

2013 California Fire Code. California Code of Regulations, Title 24, Part 9. International Code Council.

PHONE: (800) 786-4452

INTERNET: www.iccsafe.org

2013 California Vehicle Code. California Code of Regulations, Title 24. Dept. of Motor Vehicles.

PHONE: (800) 777-0133

INTERNET: www.dmv.ca.gov/pubs/pubs.htm

AWS A3.0 Standard Welding Terms and Definitions. American Welding Society.

PHONE: (305) 826-6193

INTERNET: <http://pubs.aws.org/>

Modern Welding, Althouse, A., Turnquist, C., Bowditch, W., and Bowditch, K. Goodheart-Willcox Co., Inc.

PHONE: (800) 323-0440

INTERNET: www.g-w.com

State of California General Industry & Electrical Safety Orders (Cal/OSHA) and State of California Construction Safety Orders (Cal/OSHA). 2015. California Code of Regulations, Title 8. Mancomm.

PHONE: (877) 626-2666

INTERNET: www.mancomm.com

Victor Cutting, Heating and Welding Guide.

Thermadyne Industries, Inc.

PHONE: (940) 566-2000

INTERNET: www.victortechnologies.com

Welding Handbook, Volume 2, Welding Processes, Part 1, O'Brien, A. American Welding Society.

PHONE: (305) 826-6193

INTERNET: www.awspubs.com

Publisher information is current as of 6/15