



CONTRACTORS STATE LICENSE BOARD LICENSE EXAMINATION STUDY GUIDE



REFRIGERATION (C-38)

Content of the Examination

The Refrigeration (C-38) Examination is divided into five major sections:

1. Planning and Estimating (18%)

- Planning refrigeration projects
- Estimating refrigeration projects

2. Refrigeration System Installation (26%)

- Job site preparation
- Installing refrigeration equipment
- Starting up refrigeration systems
- Installing specialty refrigeration systems

3. Refrigeration System Repair (22%)

- Troubleshooting refrigeration systems
- Troubleshooting electrical problems
- Repairing refrigeration systems

4. Refrigeration System Maintenance (18%)

- Maintaining refrigeration systems
- Documenting code compliance

5. Safety (16%)

- Personnel safety
- Job site safety

Percentages are approximate

Test Policy

This is a closed-book examination. No reference materials may be used during the examination.

Test Strategy

This is a multiple-choice examination with four choices per question. Examination questions are written to provide only one BEST answer. Some questions require mathematical computation. A calculator will be provided.

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 an asterisk (*).

1. Which of the following devices reacts to pressure?
 - a. Diaphragm*
 - b. Bimetal
 - c. Float
 - d. Moving vane

2. Which of the following devices may be used for compressor motor protection?
 - a. Line duty or pilot duty overload/hot wire or conductor
 - b. Thermal or current/line duty, or pilot duty overload*
 - c. In-line single element fuse or current relay
 - d. Internal or external/hot wire or conductor

3. If the material cost for a job is \$6,700, the labor cost is \$30/hour per person for a three-person crew to put in four 8-hour days, the overhead for labor is 14%, and the markup for parts is 15%, what is the total cost for this job?
 - a. \$10,988.20*
 - b. \$10,921.20
 - c. \$9,580.00
 - d. \$7,705.00

All questions are written and reviewed by licensed contractors who are actively working in the trade

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.dgs.ca.gov/bsc

2022 California Electrical Code. California Code of Regulations, Title 24. BNI Publications, Inc.
PHONE: (888) 264-2665
INTERNET: www.bnibooks.com

2022 California Mechanical Code. California Code of Regulations, Title 24. International Association of Plumbing and Mechanical Officials (IAPMO).

PHONE: (909) 472-4100

INTERNET: www.iapmo.org

California Health and Safety Code.

INTERNET:

leginfo.legislature.ca.gov/faces/codes.xhtml

Fundamentals of HVACR. Carter Stanfield & David Skaves. Pearson.

INTERNET: www.pearson.com

Modern Refrigeration and Air Conditioning.

Goodheart-Willcox.

PHONE: (800) 323-0440

INTERNET: www.g-w.com

Refrigeration & Air Conditioning Technology.

Cengage Learning.

PHONE: (800) 354-9706

INTERNET: www.cengage.com

State of California General Industry & Electrical Safety Orders (Cal/OSHA) and State of California Construction & Electrical Safety Orders (Cal/OSHA). 2024. California Code of

Regulations, Title 8. Mancomm.

PHONE: (877) 626-2666

INTERNET: www.mancomm.com

VIEW ONLINE:

www.dir.ca.gov/dosh/LawsAndRegulations.htm

Publisher information is current as of 1/24