

**PSI Services LLC** 3210 E Tropicana Las Vegas, NV 89121 www.psiexams.com

# **TENNESSEE BOARD FOR LICENSING CONTRACTORS**

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# **TENNESSEE CONTRACTORS CANDIDATE INFORMATION BULLETIN**

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Be sure to review this entire Candidate Information Bulletin for complete information about the scheduling, testing and licensing processes. Please refer to our website to check for the most updated information at www.psiexams.com.

### **EXAMINATIONS BY PSI**

This Candidate Information Bulletin provides you with information about the examination and application process for a contractor licensee in the State of Tennessee.

Tennessee State Laws stipulate that a person may not act as a contractor without first obtaining a license issued by the Tennessee Board for Licensing Contractors.

The Tennessee Board for Licensing Contractors has contracted with PSI to conduct the examination program. PSI provides examinations through a network of computer examination centers in Tennessee. PSI works closely with the State to be certain that examinations meet local as well as national requirements in basic principles and examination development standards.

### **CONTACT INFORMATION**

All questions and requests for information pertaining to the **examination** should be directed to PSI.

PSI

3210 E Tropicana Las Vegas, NV 89121 (800) 733-9267 Fax (702) 932-2666 <u>www.psiexams.com</u>

All questions and requests for information pertaining to **licensure** should be directed to the Tennessee Board for Licensing Contractors.

Tennessee Board for Licensing Contractors 500 James Robertson Parkway Nashville, TN 37243-1150 (615) 741-8307 or Fax (615) 532-2868 tn.gov/commerce/boards/contractors

### EXAMINATION REGISTRATION PAYMENT AND SCHEDULING PROCEDURES

The Examination Registration Form is found at the end of this Candidate Information Bulletin. You must pay at the time you register. Be sure the registration form is complete, accurate, signed, and that you include the correct fee. The registration form is valid for 1 examination.

Examination fees can be found on the registration form at the end of this Candidate Information Bulletin.

NOTE: REGISTRATION FEES ARE NOT REFUNDABLE OR TRANSFERABLE

### **INTERNET REGISTRATION**

The Examination Registration Form is available at PSI's website, <u>www.psiexams.com</u>. You may register for and schedule an examination via the Internet 24 hours a day.

1. Complete the registration form on line and send it to PSI via the Internet.

2. Upon completion of the online registration form, you will be given the available dates for scheduling your examination.

#### FAX REGISTRATION

For fax registration, you will need a valid credit card (Visa, MasterCard, American Express or Discover).

- 1. Complete the Examination Registration Form, including your credit card number and expiration date.
- 2. Fax the completed form to PSI (702) 932-2666. Fax registrations are accepted 24 hours a day.
- 3. Please allow 4 business days to process your registration. After 4 business days, you may call PSI to schedule the examination(s), (800) 733-9267.

#### STANDARD MAIL REGISTRATION

- 1. Complete the Examination Registration Form found in this Candidate Information Bulletin. BE SURE TO READ ALL DIRECTIONS CAREFULLY BEFORE COMPLETING THE EXAMINATION REGISTRATION FORM. IMPROPERLY COMPLETED FORMS WILL BE RETURNED TO YOU UNPROCESSED.
- 2. Return the completed original form to PSI with the appropriate examination fee. Payment of fees can be made by credit card (Visa, MasterCard, American Express or Discover), money order, company check or cashier's check. Make your money order or check payable to PSI and print your Social Security Number on it to ensure that your fees are properly assigned. CASH AND PERSONAL CHECKS ARE NOT ACCEPTED.
- 3. Please allow 2 weeks to process your registration before scheduling your examination.

#### **TELEPHONE REGISTRATION**

For telephone registration, you will need a valid credit card (Visa, MasterCard, American Express or Discover).

- 1. Complete the Examination Registration Form, including your credit card number and expiration date, so that you will be prepared with all of the information needed to register by telephone.
- 2. PSI registrars are available at (800) 733-9267, Monday through Friday between 6:30 am and 9:00 pm, or Saturday-Sunday between 8:00 am and 4:30 pm, Central Time, to receive the information listed on your Examination Registration Form and to schedule your appointment for the examination.

#### SCHEDULING AN APPOINTMENT TO TAKE THE EXAMINATION

You are responsible for contacting PSI to schedule an appointment to take the examination. PSI will make every effort to schedule the examination site location and time that is most convenient for you. To schedule your examination, call PSI Customer Service at (800) 733-9267, Monday through Friday between 6:30 am and 9:00 pm, or Saturday-Sunday between 8:00 am and 4:30 pm, Central Time. If space is available in the

examination site of your choice, you may schedule an examination 1 day prior to the examination date of your choice, up to 6:00 pm, Central Time. Please be prepared to offer alternate examination appointment choices.

### **REREGISTERING FOR AN EXAMINATION**

It is not possible to make a new examination appointment on the same day you have taken an examination; this is due to processing and reporting scores. A candidate who tests unsuccessfully on a Monday can call the next day, Tuesday, and retest as soon as Wednesday, depending upon space availability. You may access a registration form at www.psiexams.com. You may also call PSI at (800) 733-9267.

### CANCELING AND RESCHEDULING AN EXAMINATION APPOINTMENT

You may cancel and reschedule an examination appointment without forfeiting your fee if your *cancellation notice* is received 2 days before the scheduled examination date. You may call PSI Customer Service at (800) 733-9267, Monday through Friday between 6:30 am and 9:00 pm, or Saturday-Sunday between 8:00 am and 4:30 pm, (Central Time).

Note: A voicemail message is not an acceptable form of cancellation. Please use the PSI website or call PSI to speak directly to a Customer Service Representative.

### MISSED APPOINTMENT OR LATE CANCELLATION

Your registration will be invalid, you will not be able to take the examination as scheduled, and you will forfeit your examination fee, if you:

- Do not cancel your appointment 2 days before the scheduled examination date;
- Do not appear for your examination appointment;
- Arrive after examination start time; or
- Do not present proper identification when you arrive for the examination.

### EXAM ACCOMMODATIONS

All examination centers are equipped to provide access in accordance with the Americans with Disabilities Act (ADA) of 1990, and exam accommodation will be made in meeting a candidate's needs. Applicants with disabilities or those who would otherwise have difficulty taking the examination should make a request for alternative arrangements with PSI. Requests for exam accommodations may be made filling out and submitting the Exam Accommodations Request form found at the end of this bulletin.

### EXAMINATION SITE CLOSING FOR AN EMERGENCY

In the event that severe weather or another emergency forces the closure of an examination site on a scheduled examination date, your examination will be rescheduled. PSI personnel will attempt to contact you in this situation. However, you may check the status of your examination schedule by calling (800) 733-9267. Every effort will be made to reschedule your examination at a convenient time as soon as possible.

#### SOCIAL SECURITY NUMBER CONFIDENTIALITY

PSI will use your Social Security Number only as an identification number in maintaining your records and reporting your examination scores to the state. A Federal law requires state agencies to collect and record the Social Security Numbers of all licensees of the professions licensed by the state. If you elect not to disclose your Social Security Number to PSI, please enclose a separate letter explaining this with your Examination Registration Form. However, you **must** provide it to the state.

### **EXAMINATION SITE LOCATIONS**

The examinations are administered at the examination centers listed below:

#### Chattanooga

6918 Shallowford Rd, Suite 314 Chattanooga, TN 37421 Take I-24 thru Chattanooga. Merge onto I-75 N (toward Knoxville). Take Exit #5 - Shallowford Rd. Turn Left onto Shallowford. The office is on the left.

#### Jackson

368 North Parkway, #3 Jackson, TN 38305

From I-40, Exit 80A onto South 45 Bypass. Third Signal light is North Parkway. Go left onto North Parkway and then go right into the first driveway on your right.

From the South, take Bypass 45 North to North Parkway and go right onto North Parkway and right into first driveway on the right.

North Parkway is also known as Business Route 412. Coming from the east on 412, turn left into last driveway on the left. Coming from the West on North Parkway, turn right into the first driveway on the right, after crossing the 45 Bypass.

### Johnson City

904 Sunset Drive, Ste 7A Johnson City, TN 37604

Take I-26 to Exit 19 (Old number 36). Go South on Highway 381 (North State of Franklin Road) approximately 2.2 miles. At the 4th light turn left (this is Sunset Drive), go approximately .7 tenths of a mile. There is a large building on the left side of the road. This is 904 Sunset Drive. Suite 7A is in the row of office spaces behind this building.

#### Knoxville

301 South Gallaher View Rd, Suite 114 Knoxville, TN 37919

Traveling I-40/I-75 East Bound, take exit #379 (Bridgewater Rd.) Turn right onto Bridgewater Rd. Turn left onto Kingston Pike. Turn right onto South Gallaher View Rd.

Traveling I-40 W/I75 S West Bound, take Gallaher View exit #379. Turn left at lights, go through Kingston Pike, pass Bearden High School, and down slight hill on right.

Arrive at Suburban Office Plaza and go to back of building to Suite 114.



#### Memphis

### Apple Tree Center 6099 Mt. Moriah Extended, Suite 17 Memphis, TN 38115

Coming North from Mississippi on Interstate Hwy 55, take Interstate Hwy 240 East. Proceed 8.5 miles to Mt. Moriah Rd. Exit. Go South on Mt .Moriah Road 2.2 miles. Apple Tree Center is on the right (just past the intersection with Hickory Hill and Ridgeway roads).

Coming West on Interstate Hwy 40 from Nashville, exit on Interstate Hwy 240 West (the ring road). Proceed approx. 6.5 miles. Pass Poplar Ave. exit and then take Mt. Moriah Road Exit. Turn left (South) on Mt. Moriah and proceed 2.2 miles to Apple Tree Center on the right.

Coming East on Interstate Hwy 40, exit onto Interstate Hwy 240 South. Go approx. 6 miles to the junction with Interstate Hwy 55. Then proceed another 8.5 miles on Interstate Hwy 240 East, passing Airways Blvd., Lamar Ave., Getwell and Perkins Road exits, before exiting on Mt. Moriah Road.

For all going South on Mt. Moriah Rd., take the second entrance into Apple Tree Center. Turn left between the two buildings on the left. Then, proceed to Suite 17, which is the last suite on the left (in Bldg. 6099).

#### Nashville

The Oaks 1100 Kermit Drive, Suite 103 Nashville, TN 37217

From I-40 East: take exit onto I-24 (Exit 213-A). Take Murfreesboro Road at the first exit (Exit 52). Stay in the right lane on the ramp, as the exit appears while you are still in the curve. On Murfreesboro, stay in the left lane. You will pass Days Inn and Super Gigante grocery on your right. Turn left onto Kermit Drive when there is a McDonalds on your right. PSI is in the first building on your left.

From I-40 West: take exit onto Briley Parkway, turn left onto Briley PWY. Exit onto Murfreesboro Rd. Stay in the right lane. Turn right onto Kermit Drive. PSI is in the first building on your left.

Additionally, PSI has examination centers in many other regions across the United States. You may take this examination at any of these locations by filling out the out-of-state testing request form found at the end of this Candidate Information Bulletin.

### **REPORTING TO THE EXAMINATION SITE**

On the day of the examination, you should arrive at least 30 minutes prior to your scheduled appointment time. This allows time for the sign-in and identification verification procedure as well as providing time for you to familiarize yourself with the examination process. *If you arrive late, you will not be admitted to the examination site and you will forfeit your examination registration fee.* 

### **REQUIRED IDENTIFICATION AT EXAMINATION SITE**

*You must provide 2 forms of identification*. One must be a VALID form of government-issued identification (driver's license, state ID, passport), which bears your signature and has your photograph or a complete physical description. The second ID must have your signature and preprinted legal name. All identification provided must match the name on the Examination Registration Form.

If you cannot provide the required identification, you must call (800) 733-9267 at least 3 weeks prior to your scheduled appointment to arrange a way to meet this security requirement. Failure to provide all of the required identification at the time of the examination without notifying PSI is considered a missed appointment, and you will not be able to take the examination.

#### SECURITY PROCEDURES

The following security procedures will apply during the examination:

- Only non-programmable calculators that are silent, battery-operated, do not have paper tape printing capabilities, and do not have a keyboard containing the alphabet will be allowed in the examination site.
- Candidates may take only approved items into the examination room.
- All personal belongings of candidates, with the exception of close-fitting jackets or sweatshirts, should be placed in the secure storage provided at each site prior to entering the examination room. Personal belongings include, but are not limited to, the following items:
  - Electronic devices of any type, including cellular / mobile phones, recording devices, electronic watches, cameras, pagers, laptop computers, tablet computers (e.g., iPads), music players (e.g., iPods), smart watches, radios, or electronic games.
  - **Bulky or loose clothing or coats** that could be used to conceal recording devices or notes, including coats, shawls, hooded clothing, heavy jackets, or overcoats.
  - Hats or headgear not worn for religious reasons or as religious apparel, including hats, baseball caps, or visors.
  - **Other personal items**, including purses, notebooks, reference or reading material, briefcases, backpacks, wallets, pens, pencils, other writing devices, food, drinks, and good luck items.
- Person(s) accompanying an examination candidate may not wait in the examination center, inside the building or on the building's property. This applies to guests of any nature, including drivers, children, friends, family, colleagues or instructors.
- No smoking, eating, or drinking is allowed in the examination center.
- During the check in process, all candidates will be asked if they possess any prohibited items. Candidates may also be asked to empty their pockets and turn them out for the proctor to ensure they are empty. The proctor may also ask candidates to lift up the ends of their sleeves and the bottoms of their pant legs to ensure that notes or recording devices are not being hidden there.
- Proctors will also carefully inspect eyeglass frames, tie tacks, or any other apparel that could be used to harbor a recording device. Proctors will ask to inspect any such items in candidates' pockets.



- If prohibited items are found during check-in, candidates shall put them in the provided secure storage or return these items to their vehicle. PSI will not be responsible for the security of any personal belongings or prohibited items.
- Any candidate possessing prohibited items in the examination room shall immediately have his or her test results invalidated, and PSI shall notify the examination sponsor of the occurrence.
- Any candidate seen giving or receiving assistance on an examination, found with unauthorized materials, or who violates any security regulations will be asked to surrender all examination materials and to leave the examination All such instances will be reported to the center. examination sponsor.
- Copying or communicating examination content is violation of a candidate's contract with PSI, and federal and state law. Either may result in the disqualification of examination results and may lead to legal action.
- Once candidates have been seated and the examination begins, they may leave the examination room only to use the restroom, and only after obtaining permission from the Candidate will not receive extra time to proctor. complete the examination.

### TAKING THE EXAMINATION BY COMPUTER

The examination will be administered via computer. You will be using a mouse and computer keyboard.

### **IDENTIFICATION SCREEN**

You will be directed to a semiprivate testing station to take the examination. When you are seated at the testing station, you will be prompted to confirm your name, identification number, and the examination for which you are registered.

### TUTORIAL

Before you start your examination, an introductory tutorial is provided on the computer screen. The time you spend on this tutorial, up to 15 minutes, DOES NOT count as part of your examination time. Sample questions are included following the tutorial so that you may practice answering questions, and reviewing your answers.

### **TEST QUESTION SCREEN**

				m Mark	Comments	🙌 Goto	? Help	× En o
	Question: 3 of 40	Answered: 2	Unanswered: 1	Marked: O	View: All	Time Left(N	in): 359	
3.	What do the stars	on the United S	tates of America's	flag represent?				
	(Choose from the fo	ollowing options)						
	🗌 1. Presidents	5						
	🗌 2. Colonies							
	🗌 3. States							
	🗌 4. Wars							
			<< Back	Next >>				

The "Function Bar" at the top of the test question provides mouse-click access to the features available while taking the examination.

One guestion appears on the screen at a time. During the examination, minutes remaining will be displayed at the top of the screen and updated as you record your answers.

IMPORTANT: After you have entered your responses, you will later be able to return to any question(s) and change your response, provided the examination time has not run out or you have ended your examination.

#### **EXAMINATION REVIEW**

Failing candidates will have the option of reviewing their examination in a secure environment and challenging any questions or answers that they feel should be eliminated, or changed. The review is one hour in length.

The fee for reviewing your examination is \$57. You may register for the examination review via telephone, Internet, mail, or fax. If you would like to register by mail or fax, please fill out the Registration Form found on page 21 of this bulletin. You may pay with a credit card (Visa, MasterCard, American Express or Discover), money order, company check, or cashier's check. Cash and personal checks are not accepted.

During the review, candidates will be presented with the questions the candidate incorrectly answered during the examination. Additionally, the candidate will be given the correct answer to the question. The purpose of the review is to allow the candidate to self-research the question to determine why the answer they selected was incorrect. If the candidate feels that there is an error in the question, the candidate may comment about the question during the review by writing down comments on the Review sheet.

All comments made are for the future benefit of candidates. PSI will review all comments and, if necessary, make immediate key changes (or item deletions). However, PSI will not, under any circumstances, retroactively change a grade of any prior candidate. There will not be any notification sent to you from PSI with regard to your review.

You may not be permitted to take any notes out of the review sessions. Please call (800) 733-9267 with any questions. The examination review fee is \$57 and it is one hour in length, regardless of the number of portions you are reviewing. You must schedule the examination review within 45 days from the date you originally took the examination.



### **SCORE REPORTING**

Your score will be given to you immediately following completion of the examination. The following summary describes the score reporting process:

- <u>On screen</u> your score will appear immediately on the computer screen. This will happen automatically at the end of the time allowed for the examination; if you are using review features, you will be able to obtain your score immediately when you indicate that you have finished and would like to see your results.
  - If you <u>pass</u>, you will immediately receive a successful notification and performance summary on the screen.
  - If you <u>do not pass</u>, you will immediately receive an unsuccessful notification on the screen along with a diagnostic report indicating your strengths and weaknesses by examination portion. Registration forms for submittal to PSI to retake the examination will be available at the examination site.
- <u>On paper</u> an official score report will be printed at the examination site.

#### **DUPLICATE SCORE REPORTS**

You may request a duplicate score report after your examination by emailing <u>scorereport@psionline.com</u> or by calling 800-733-9267.

### TIPS FOR PREPARING FOR YOUR LICENSE EXAMINATION

The following suggestions will help you prepare for your examination.

- Planned preparation increases your likelihood of passing.
- Start with a current copy of this Candidate Information Bulletin and use the examination content outline as the basis of your study.
- Read study materials that cover all the topics in the content outline.
- Take notes on what you study. Putting information in writing helps you commit it to memory and it is also an excellent business practice. Underline or highlight key ideas that will help with a later review.
- Discuss new terms or concepts as frequently as you can with colleagues. This will test your understanding and reinforce ideas.
- Your studies will be most effective if you study frequently, for periods of about 45 to 60 minutes. Concentration tends to wander when you study for longer periods of time.

#### Now you can take the practice exam online at <u>www.psiexams.com</u> to prepare for your Contractor Examination

Please note that practice exams are intended only to help testing candidates become familiar with the general types of questions that will appear on a licensing examination. They ARE NOT a substitute for proper education and study. Furthermore, scoring well on the practice exam does not guarantee a positive outcome on an actual licensing examination.

Note: You may take the practice exams an unlimited number of times; you will need to pay each time.

### DESCRIPTION OF EXAMINATIONS

If a test question answer could differ because of conflicting information in test reference sources, a legal requirement such as a code, law, or regulation overrides any other reference. If two legal requirements appear to conflict, the statespecific code, law, or regulation overrides the national one. Information from sources on the test reference list override information from other sources or persons.

### NON-SCORED QUESTIONS

Your examination contains non-scored questions. The use of such questions is an essential step in developing accurate future examinations. These questions will NOT be scored and time to answer them has been added to the time allowed.

### BUSINESS AND LAW MANAGEMENT EXAMINATION

# of Questions	% Required to Pass	Time Allowed
50	73% (37 items)	140 minutes

### **CONTENT OUTLINE**

Subject Area	# of Items
Licensing Requirements	5
Estimating and Bidding	7
Business Organization and Financial Management	7
Tax Laws	5
Labor Laws	5
Project Management and Lien Law	6
Contracts	6
Risk Management	4
Environmental and Safety	5

#### **REFERENCE LIST**

The reference material listed below was used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. **Except for Code books**, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based **only** on the edition of the Code book that is listed.

Candidates may use a silent, nonprinting, non-programmable calculator in the examination center.

This examination is OPEN BOOK.

The following reference material <u>is</u> allowed in the examination center:



 Contractors' Guide to Business, Law and Project Management - Tennessee Edition, 2<sup>nd</sup> Edition, National Association of State Contractor Licensing Agencies (NASCLA), (623) 587-9519, Fax (623) 587-9625, www.nascla.org

Candidates are responsible for bringing their own references to the examination center. Reference materials may be highlighted, underlined, and/or indexed prior to the examination session. However, references may not be written in. Any candidate caught writing in the references during the examination will be reported to the Board. Furthermore, candidates are not permitted to bring in any additional papers (loose or attached) with their approved references. References may be tabbed/indexed with permanent tabs only. Temporary tabs, such as Post-It notes, are not allowed and must be removed from the reference before the exam will begin. Scratch paper will be provided for calculations. Candidates will NOT be permitted to remove from the examination room ANY material that has been written on. (This would include books).

### CONTRACTOR EXAMINATIONS

The reference materials listed in the content outlines may be found at any of the following locations:

Builders Book Depot www.buildersbookdepot.com 800-284-3434

Contractors Institute https://cistore.contractorsinstitute.com// 877-542-3673

> My Contractors License www.mycontractorlicense.com 877-699-0775

Many of these reference materials are available for purchase at <u>www.psionlinestore.com</u> or by calling the PSI Online Store, toll-free, at (866) 589-3088.

Titles currently in stock are listed on the order form near the end of this candidate information bulletin.

### CMC-A - MECHANICAL PLUMBING

### IMPORTANT

Effective May 24, 2007, Senate Bill 0786 and HB 2122 requires plumbers to be pre-approved prior to taking CMCA (plumbing exam) and must show evidence of three (3) years experience. You must complete the "Exam Approval Request" form found on the Boards website: tn.gov/commerce/boards/contractors, and send to the Board office. Upon receipt, after the experience is confirmed, your information will be electronically submitted to PSI, and you can then schedule for the examination.

# of Questions	% Required to Pass	Time Allowed
110	73% (81 items)	295 minutes

### **CONTENT OUTLINE**

Subject Area	# of Items
General Knowledge and Math	14
General Requirements (not including Gas) - Administrative, Structural, Backflow, Materials and Supports, Joints and Connections, Storm Drains, Testing	10
Water Supply and Distribution	10
Fixtures, including Water Heaters	6
Drain, Waste, and Vent Systems, including Indirect and Special Waste	28
Traps, Cleanouts, and Interceptors	6
Isometric Analysis	20
Gas Appliances and Piping	12
OSHA Safety	4

### REFERENCE LIST

The reference material listed below was used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. **Except for Code books**, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based **only** on the edition of the Code book that is listed.

Candidates may use a silent, nonprinting, non-programmable calculator in the examination center.

This examination is OPEN BOOK.

The following reference materials <u>are</u> allowed in the examination center:

- International Plumbing Code, 2012, International Code Council, (800) 786-4452, www.iccsafe.org.
- International Fuel Gas Code, 2012, International Code Council, (800) 786-4452, <u>www.iccsafe.org</u>.
- Mathematics for Plumbers and Pipefitters, Lee Smith, 8th Edition, 2013, <u>www.cengage.com</u>
- Code of Federal Regulations 29 CFR Part 1926 (OSHA), with latest available amendments, U.S. Government Printing Office, (866) 512-1800 or <u>https://www.osha.gov/pls/oshaweb/owastand.display\_st</u> <u>andard\_group?p\_toc\_level=1&p\_part\_number=1926</u> OR

Code of Federal Regulations - 29 CFR Part 1926 Selections by PSI, with latest available amendments, (866) 589-3088, <u>www.psiexams.com</u> (See order form at the end of the Candidate Information Bulletin.)



Candidates are responsible for bringing their own references to the examination center. Reference materials may be highlighted, underlined, and/or indexed prior to the examination session. However, references may not be written in. Any candidate caught writing in the references during the examination will be reported to the Board. Furthermore, candidates are not permitted to bring in any additional papers (loose or attached) with their approved references. References may be tabbed/indexed with permanent tabs only. Temporary tabs, such as Post-It notes, are not allowed and must be removed from the reference before the exam will begin. Scratch paper will be provided for calculations. Candidates will NOT be permitted to remove from the examination room ANY material that has been written on. (This would include books).

### BC - COMBINED -RESIDENTIAL/COMMERCIAL/INDUSTRIAL CONTRACTOR

# of Questions	% Required to Pass	Time Allowed
100	73% (73 items)	300 minutes

### **CONTENT OUTLINE**

Subject Area	# of Items
Sitework, Footings, and Foundation	10
Concrete and Concrete Reinforcement	15
Masonry	10
Carpentry	6
Metals	10
Roofing	6
Associated Trades	10
General Code, Plan Reading, and Estimating	27
OSHA Safety	6

### **REFERENCE LIST**

The reference material listed below was used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. **Except for Code books**, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based **only** on the edition of the Code book that is listed.

Candidates may use a silent, nonprinting, non-programmable calculator in the examination center. Candidates may also use a construction calculator.

This examination is OPEN BOOK.

The following reference materials <u>are</u> allowed in the examination center:

 International Building Code, 2012, International Code Council, (800) 786-4452, <u>www.iccsafe.org</u>.

- International Residential Code for One- and Two-Family Dwellings, 2012, International Code Council, (800) 786-4452, www.iccsafe.org.
- Code of Federal Regulations 29 CFR Part 1926 (OSHA), with latest available amendments, U.S. Government Printing Office, (866) 512-1800 or <u>https://www.osha.gov/pls/oshaweb/owastand.display\_st</u> <u>andard\_group?p\_toc\_level=1&p\_part\_number=1926</u> OR Code of Federal Regulations - 29 CFR Part 1926 Selections by PSI, with latest available amendments, (866) 589-3088, <u>www.psiexams.com</u> (See order form at the end of the Candidate Information Bulletin.)
- Carpentry and Building Construction, 2010 or 2016 (Student Edition), John L. Feirer and Mark D. Feirer, McGraw-Hill, www.mheducation.com
- Roofing Construction and Estimating, Daniel Atcheson, 1995, Craftsman Book Company, (800) 829-8123, www.craftsman-book.com/products
- Modern Masonry Brick, Block, Stone, Clois E. Kicklighter, 8th edition (2015). The Goodheart-Willcox Company, (800) 323-0440, www.g-w.com.
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- ACI 318-11 or ACI 318-14 (2011 or 2014): Building Code Requirements for Structural Concrete and Commentary, American Concrete Institute, (248) 848-3700, www.concrete.org



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### **BC-A - RESIDENTIAL CONTRACTOR**

# of Questions	% Required to Pass	Time Allowed
100	73% (73 items)	300 minutes

### **CONTENT OUTLINE**

Subject Area	# of Items
Sitework, Footings, and Foundation	10
Concrete and Concrete Reinforcement	10
Masonry	7
Carpentry	20
Roofing	10
Estimating, Plan Reading, and Gen Residential Code Requirements	20
Associated Trades	15
OSHA Safety	8

### **REFERENCE LIST**

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This examination is OPEN BOOK.

# The following reference materials <u>are</u> allowed in the examination center:

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- Code of Federal Regulations 29 CFR Part 1926 (OSHA), with latest available amendments, U.S. Government Printing Office, (866) 512-1800 or <u>https://www.osha.gov/pls/oshaweb/owastand.display\_st</u> <u>andard\_group?p\_toc\_level=1&p\_part\_number=1926</u> OR Code of Federal Regulations - 29 CFR Part 1926 Selections bu DSL with latest weightly amendments (90(4) 580-2009

by PSI, with latest available amendments, (866) 589-3088, www.psiexams.com (See order form at the end of the Candidate Information Bulletin.)

- Carpentry and Building Construction, 2010 or 2016 (Student Edition), John L. Feirer and Mark D. Feirer, McGraw-Hill, <u>www.mheducation.com</u>
- BCSI: Guide to Good Practice for Handling, Installing, Restraining, and Bracing of Metal Plate Connected Wood Trusses, 2013 (updated March 2015), Structural Building Components Association and Truss Plate Institute, (608) 274-4849, www.sbcindustry.com
- The Contractor's Guide to Quality Concrete Construction, 2005, 3rd Edition, American Concrete Institute, (248) 848-3700, www.aci-int.org
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- Modern Masonry Brick, Block, Stone, Clois E. Kicklighter, 8th edition (2015). The Goodheart-Willcox Company, (800) 323-0440, www.g-w.com.
- Pipe and Excavation Contracting, Dave Roberts, 2011, Craftsman Book Company, (800) 829-8123, www.craftsman-book.com/products



### **BC-B - COMMERCIAL CONTRACTOR**

# of Questions	% Required to Pass	Time Allowed
100	73% (73 items)	300 minutes

### **CONTENT OUTLINE**

Subject Area	# of Items
Sitework, Footings, and Foundation	10
Concrete and Concrete Reinforcement	15
Masonry	10
Metals	10
Carpentry	6
OSHA Safety	6
General Code, Plan Reading, and Estimating	27
Associated Trades	10
Roofing	6

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- ACI 318-11 or ACI 318-14 (2011 or 2014): Building Code Requirements for Structural Concrete and Commentary, American Concrete Institute, (248) 848-3700, www.concrete.org



### **BC-b - SMALL COMMERCIAL CONTRACTOR**

# of Questions	% Required to Pass	Time Allowed
70	73% (52 items)	200 minutes

### CONTENT OUTLINE

Subject Area	# of Items
Sitework, Footings, and Foundation	6
Concrete and Concrete Reinforcement	8
Masonry	6
Metals	12
Carpentry	6
Roofing	7
Associated Construction Trades	5
OSHA Safety	5
General Code, Plan Reading, and Estimating	15

### **REFERENCE LIST**

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### **BC-C - INDUSTRIAL CONTRACTOR**

# of Questions	% Required to Pass	Time Allowed
72	73% (53 items)	210 minutes

### **CONTENT OUTLINE**

Subject Area	# of Items
Sitework, Footings, and Foundation	5
Concrete and Concrete Reinforcement	18
Masonry	6
Carpentry	4
Metals	13
Roofing	4
Associated Trades	4
OSHA Safety	5
General Code, Plan Reading, and Estimating	13

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*by PSI*, with latest available amendments, (866) 589-3088, <u>www.psiexams.com</u> (See order form at the end of the Candidate Information Bulletin.)

- Modern Masonry Brick, Block, Stone, Clois E. Kicklighter, 8th edition (2015). The Goodheart-Willcox Company, (800) 323-0440, www.g-w.com.
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### BC-A, B - COMBINED -RESIDENTIAL/COMMERCIAL CONTRACTOR

# of Questions	% Required to Pass	Time Allowed
100	73% (73 items)	300 minutes

### CONTENT OUTLINE

Subject Area	# of Items
Sitework, Footings, and Foundation	10
Concrete and Concrete Reinforcement	15
Masonry	10
Carpentry	6
Metals	10
Roofing	6
Associated Trades	10
General Code, Plan Reading, and Estimating	27
OSHA Safety	6

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### BC-A, b (sm) - COMBINED-RESIDENTIAL/SMALL COMMERCIAL CONTRACTOR

# of Questions	% Required to Pass	Time Allowed
100	73% (73 items)	300 minutes

### CONTENT OUTLINE

Subject Area	# of Items
Sitework, Footings, and Foundation	10
Concrete and Concrete Reinforcement	10
Metals	6
Masonry	7
Carpentry	17
Roofing	10
Estimating, Plan Reading, and Gen Residential Code Requirements	20
Associated Trades	12
OSHA Safety	8

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### BC-B, C - COMBINED -COMMERCIAL/INDUSTRIAL CONTRACTOR

# of Questions	% Required to Pass	Time Allowed
100	73% (73 items)	300 minutes

### **CONTENT OUTLINE**

Subject Area	# of Items
Sitework, Footings, and Foundation	10
Concrete and Concrete Reinforcement	15
Metals	10
Masonry	10
Carpentry	6
OSHA Safety	6
General Code, Plan Reading, and Estimating	27
Associated Trades	10
Roofing	6

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- Roofing Construction and Estimating, Daniel Atcheson, 1995, Craftsman Book Company, (800) 829-8123, www.craftsman-book.com/products
- Modern Masonry Brick, Block, Stone, Clois E. Kicklighter, 8<sup>th</sup> edition (2015). The Goodheart-Willcox Company, (800) 323-0440, <u>www.g-w.com</u>.

- Pipe and Excavation Contracting, Dave Roberts, 2011, Craftsman Book Company, (800) 829-8123, www.craftsman-book.com/products
- Gypsum Construction Handbook, 7th edition, 2014, United States Gypsum Company (USG), RS Means Publishing, 700 Longwater Drive, Norwell, MA 02061, 800-334-3509, Fax: 800-632-6732, rsmeans.reedconstructiondata.com
- Technical Digest No. 9 Handling and Erection of Steel Joists and Joist Girders, 3rd Edition, 2008, Steel Joint Institute, 234 W. Cheves Street, Florence, SC 29501, Phone: (843) 407-4091, Fax (843) 407-4044, www.steeljoist.org.
- SDI Manual of Construction with Steel Deck, 2006, 2nd Edition, Steel Deck Institute, (847) 458-4647, http://www.sdi.org/manuals.htm
- Placing Reinforcing Bars, 2011, 9th Edition, Concrete Reinforcing Steel Institute, (800) 328-6306, www.crsi.org
- Design and Control of Concrete Mixtures, Steven H. Kosmatka and William C. Panarese, 15<sup>th</sup> Edition, 2011, Portland Cement Association, (847) 966-6200, www.cement.org
- Training and Certification of Field Personnel for Unbonded Post-Tensioning - Level 1 Field Fundamentals, 2003, 3rd Edition, Post-Tensioning Institute, (602) 870-7540, <u>http://post-tensioning.org/index.php</u>
- Erectors' Manual Standards and Guidelines for the Erection of PreCast Concrete Products, 1999, 2nd Edition, Precast/Prestressed Concrete Institute (PCI), (312) 786-0300, www.pci.org
- ACI 530/530.1-11 or ACI 530/530.1-13 (2011 or 2013): Building Code Requirements and Specification for Masonry Structures and Companion Commentaries, American Concrete Institute, (248) 848-3700, www.concrete.org
- ACI 318-11 or ACI 318-14 (2011 or 2014): Building Code Requirements for Structural Concrete and Commentary, American Concrete Institute, (248) 848-3700, www.concrete.org



### **CE - ELECTRICAL CONTRACTOR**

# of Questions	% Required to Pass	Time Allowed
100	73% (73 items)	260 minutes

### **CONTENT OUTLINE**

Subject Area	# of Items
General Knowledge and Electrical Installation Requirements	14
Building Code Requirements	5
Services, Feeders, and Branch Circuits	10
Overcurrent Protection	4
Grounding and Bonding	10
Conductors and Cables	8
Raceways and Boxes	8
Hazardous Locations, Special Occupancies, and Special Equipment	12
Low Voltage, Alarms, Signaling Systems, and Communications	7
Lighting, Signs and General Use Equipment	6
OSHA and NFPA 70E Safety	6
Motors, Transformers, and Generators	10

### **REFERENCE LIST**

The reference material listed below was used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. **Except for Code books**, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based **only** on the edition of the Code book that is listed.

Candidates may use a silent, nonprinting, non-programmable calculator in the examination center.

This examination is OPEN BOOK.

The following reference materials <u>are</u> allowed in the examination center:

- NFPA 70 National Electrical Code, 2011, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org.
- National Electrical Code (NEC) Handbook, 2011, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org.
- NFPA 70E Standard for Electrical Safety in the Workplace, 2012, National Fire Protection Association (NFPA), (800) 344-3555, <u>www.nfpa.org</u>.
- NFPA 70E Handbook for Electrical Safety in the Workplace, 2012, National Fire Protection Association (NFPA), (800) 344-3555, <u>www.nfpa.org</u>.
- International Building Code, 2012, International Code Council, (800) 786-4452, www.iccsafe.org.

 Code of Federal Regulations - 29 CFR Part 1926 (OSHA), with latest available amendments, U.S. Government Printing Office, (866) 512-1800 or <u>https://www.osha.gov/pls/oshaweb/owastand.display\_st</u> <u>andard\_group?p\_toc\_level=1&p\_part\_number=1926</u> OR Code of Federal Regulations - 29 CFR Part 1926

Selections by PSI, with latest available amendments, (866) 589-3088, <u>www.psiexams.com</u> (See order form at the end of the Candidate Information Bulletin.)

 Ugly's Electrical References, George V. Hart, 2008, 2011, or 2014, Jones and Bartlett, (800) 832-0034, www.uglys.net

Candidates are responsible for bringing their own references to the examination center. Reference materials may be highlighted, underlined, and/or indexed prior to the examination session. However, references may not be written in. Any candidate caught writing in the references during the examination will be reported to the Board. Furthermore, candidates are not permitted to bring in any additional papers (loose or attached) with their approved references. References may be tabbed/indexed with permanent tabs only. Temporary tabs, such as Post-It notes, are not allowed and must be removed from the reference before the exam will begin. Scratch paper will be provided for calculations. Candidates will NOT be permitted to remove from the examination room ANY material that has been written on. (This would include books).

### \*CMC - FULL MECHANICAL CONTRACTOR

### **IMPORTANT**

Effective May 24, 2007, Senate Bill 0786 and HB 2122 requires plumbers to be pre-approved prior to taking CMC (plumbing exam) and must show evidence of three (3) years experience. You must complete the "Exam Approval Request" form found on the Boards website: tn.gov/commerce/boards/contractors, and send to the Board office. Upon receipt, after the experience is confirmed, your information will be electronically submitted to PSI, and you can then schedule for the examination.

# of Questions	% Required to Pass	Time Allowed
120	73% (88 items)	325 minutes

### **CONTENT OUTLINE**

Subject Area	# of Items
Electrical Knowledge, Motors, and Controls	8
Piping - Refrigeration, Hydronic, Steam, and Process	10
Heating and Cooling Principles and Theory	5
Heating and Cooling Equipment and Components	10
Refrigerants and Refrigeration	10
Fuel and LP Gas	10
Combustion Air, Chimneys, Flues, and Vents	10



Ducts, Ventilation, and Exhaust	10
Plumbing	20
Load Calculation	5
Safety, Fire and Smoke Protection	12
Fire Sprinkler	10

#### **REFERENCE LIST**

The reference material listed below was used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. **Except for Code books**, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based **only** on the edition of the Code book that is listed.

Candidates may use a silent, nonprinting, non-programmable calculator in the examination center.

This examination is OPEN BOOK.

## The following reference materials <u>are</u> allowed in the examination center:

- International Mechanical Code, 2012, International Code Council, (800) 786-4452, <u>www.iccsafe.org</u>.
- International Fuel Gas Code, 2012, International Code Council, (800) 786-4452, <u>www.iccsafe.org</u>.
- International Plumbing Code, 2012, International Code Council, (800) 786-4452, <u>www.iccsafe.org</u>.
- NFPA 13 Installation of Sprinkler Systems, 2010, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org.
- Pipefitters Handbook, Forrest R. Lindsey, 1967, 3rd Edition, Industrial Press, (888) 528-7852, www.industrialpress.com
- International Plumbing Code, 2006, International Code Council, (800) 786-4452, <u>www.iccsafe.org</u>
- Modern Refrigeration and Air Conditioning, Althouse, Turnquist, Bracciano, 19<sup>th</sup> or 20<sup>th</sup> edition, Goodheart-Willcox, <u>www.g-w.com</u>
- An air duct sizing calculator wheel, slide, or similar device
- HVAC Duct Construction Standards, Metal and Flexible, 2005, 3rd edition, Sheet Metal and Air Conditioning Contractors' National Association, Inc., (703) 803-2980, www.smacna.org
- Ugly's Electrical References, George V. Hart, 2008, 2011, or 2014, Jones and Bartlett, (800) 832-0034, www.uglys.net
- Carrier System Design Manual Part 3 Piping Design, Carrier Air Conditioning Company, (800) 227-7437, www.training.carrier.com
- Code of Federal Regulations 29 CFR Part 1926 (OSHA), with latest available amendments, U.S. Government Printing Office, (866) 512-1800 or <u>https://www.osha.gov/pls/oshaweb/owastand.display\_st</u> <u>andard\_group?p\_toc\_level=1&p\_part\_number=1926</u> OR

Code of Federal Regulations - 29 CFR Part 1926 Selections by PSI, with latest available amendments, (866) 589-3088, <u>www.psiexams.com</u> (See order form at the end of the Candidate Information Bulletin.)



- Manual N Commercial Load Calculation for Small Commercial Buildings, 5th Edition, 2008, Air Conditioning Contractors of America (ACCA), (703) 575-4477, www.acca.org
- Manual J Residential Load Calcs, reprinted 2006, Eighth Full Edition, Air Conditioning Contractors of America (ACCA), 2800 Shirlington Road, Suite 300. Arlington, VA 22206, (703) 575-4477, www.acca.org

Candidates are responsible for bringing their own references to the examination center. Reference materials may be highlighted, underlined, and/or indexed prior to the examination session. However, references may not be written in. Any candidate caught writing in the references during the examination will be reported to the Board. Furthermore, candidates are not permitted to bring in any additional papers (loose or attached) with their approved references. References may be tabbed/indexed with permanent tabs only. Temporary tabs, such as Post-It notes, are not allowed and must be removed from the reference before the exam will begin. Scratch paper will be provided for calculations. Candidates will NOT be permitted to remove from the examination room ANY material that has been written on. (This would include books).

### CMC-C - MECHANICAL - HVAC/REFRIGERATION CONTRACTOR

# of Questions	% Required to Pass	Time Allowed
100	73% (73 items)	260 minutes

### CONTENT OUTLINE

Subject Area	# of Items
Electrical Knowledge, Motors, and Controls	7
Piping - Refrigeration, Hydronic, Steam and Process	14
Heating and Cooling Principles and Theory	10
Heating and Cooling Equipment and Components	10
Refrigerants and Refrigeration	10
Fuel and LP Gas	10
Combustion Air, Chimneys, Flues and Vents	10
Ducts, Ventilation and Exhaust	14
Load Calculation	5
Safety, Fire and Smoke Protection	10

#### REFERENCE LIST

The reference material listed below was used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. **Except for Code books**, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based **only** on the edition of the Code book that is listed.

Candidates may use a silent, nonprinting, non-programmable calculator in the examination center.

This examination is OPEN BOOK.

The following reference materials <u>are</u> allowed in the examination center:

- International Mechanical Code, 2006, International Code Council, (800) 786-4452, <u>www.iccsafe.org</u>.
- *Manual J Residential Load Calcs*, reprinted 2006, Eighth Full Edition, Air Conditioning Contractors of America (ACCA), 2800 Shirlington Road, Suite 300. Arlington, VA 22206, (703) 575-4477, <u>www.acca.or</u>
- International Fuel Gas Code, 2006, International Code Council, (800) 786-4452, <u>www.iccsafe.org</u>.
- Pipefitters Handbook, Forrest R. Lindsey, 1967, 3rd Edition, Industrial Press, (888) 528-7852, www.industrialpress.com
- Modern Refrigeration and Air Conditioning, Althouse, Turnquist, Bracciano, 19<sup>th</sup> or 20<sup>th</sup> edition, Goodheart-Willcox, <u>www.g-w.com</u>
- An air duct sizing calculator wheel, slide or similar device
- HVAC Duct Construction Standards, Metal and Flexible, 2005, 3rd edition, Sheet Metal and Air Conditioning Contractors' National Association, Inc., (703) 803-2980, www.smacna.org
- Ugly's Electrical References, George V. Hart, 2008, 2011, or 2014, Jones and Bartlett, (800) 832-0034, www.uglys.net
- Carrier System Design Manual Part 3 Piping Design, Carrier Air Conditioning Company, (800) 227-7437, www.training.carrier.com
- Code of Federal Regulations 29 CFR Part 1926 (OSHA), with latest available amendments, U.S. Government Printing Office, (866) 512-1800 or <u>https://www.osha.gov/pls/oshaweb/owastand.display\_st</u> andard\_group?p\_toc\_level=1&p\_part\_number=1926 OR

Code of Federal Regulations - 29 CFR Part 1926 Selections by PSI, with latest available amendments, (866) 589-3088, www.psiexams.com (See order form at the end of the Candidate Information Bulletin.)

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### CMC-D - MECHANICAL - FIRE SPRINKLERS AND FIRE PROTECTION CONTRACTOR

# of Questions	% Required to Pass	Time Allowed
77	73% (57 items)	195 minutes

### CONTENT OUTLINE

Subject Area	# of Items
Miscellaneous Systems	10
NFPA 13-D	4
NFPA 13-R	6
NFPA 13	30
NFPA 14	5
NFPA 20	7
NFPA 24	5
NFPA 25	6
NFPA 101	4

### REFERENCE LIST

The reference material listed below was used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. **Except for Code books**, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based **only** on the edition of the Code book that is listed.

Candidates may use a silent, nonprinting, non-programmable calculator in the examination center.

This examination is OPEN BOOK.

The following reference materials <u>are</u> allowed in the examination center:

- NFPA 11 Standard for Low-, Medium-, and High-Expansion Foam, 2010, National Fire Protection Association (NFPA), (800) 344-3555, <u>www.nfpa.org</u>
- NFPA 12 Standard on Carbon Dioxide Extinguishing Systems, 2011, National Fire Protection Association (NFPA), (800) 344-3555, <u>www.nfpa.org</u>
- NFPA 15 Standard for Water Spray Fixed Systems for Fire Protection, 2012, National Fire Protection Association (NFPA), (800) 344-3555, <u>www.nfpa.org</u>
- NFPA 16 Standard for the Installation of Foam-Water Sprinkler and Foam-Water Spray Systems, 2011, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 22 Standard for Water Tanks for Private Fire Protection, 2008, National Fire Protection Association (NFPA), (800) 344-3555, <u>www.nfpa.org</u>
- NFPA 2001 Standard for Clean Agent Fire Extinguishing Systems, 2008, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org



- NFPA 13D Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes, 2010, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 13R Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height, 2010, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 13 Installation of Sprinkler Systems, 2010, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 14 Installation of Standpipe, Private Hydrant, and Hose Systems, 2010, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 20 Standard for the Installation of Stationary Pumps for Fire Protection, 2010, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 24 Standard for the Installation of Private Fire Service Mains and Their Appurtenances, 2010, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 25 Inspection, Testing and Maintenance of Water-Based Fire Protection Systems, 2011, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 101 Life Safety Code, 2012, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org

Candidates are responsible for bringing their own references to the examination center. Reference materials may be highlighted, underlined, and/or indexed prior to the examination session. However, references may not be written in. Any candidate caught writing in the references during the examination will be reported to the Board. Furthermore, candidates are not permitted to bring in any additional papers (loose or attached) with their approved references. References may be tabbed/indexed with permanent tabs only. Temporary tabs, such as Post-It notes, are not allowed and must be removed from the reference before the exam will begin. Scratch paper will be provided for calculations. Candidates will NOT be permitted to remove from the examination room ANY material that has been written on. (This would include books).

### CE-A, H - HIGH VOLTAGE ELECTRICAL CONTRACTOR

C	# of Juestions	% Required to Pass	Time Allowed
	60	73% (44 items)	160 minutes

### CONTENT OUTLINE

Subject Area	# of Items
Safety	10
Tools, Equipment, and Transportation	10
Structures	5
Transformers, Breakers, Vaults	5
Conductors	4
Distribution, Transmission, and Substations	16
General Electrical Knowledge	10

### REFERENCE LIST

The reference material listed below was used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. **Except for Code books**, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based **only** on the edition of the Code book that is listed.

Candidates may use a silent, nonprinting, non-programmable calculator in the examination center.

This examination is OPEN BOOK.

The following reference materials <u>are</u> allowed in the examination center:

- NFPA 70 National Electrical Code, 2011, National Fire Protection Association, (800) 344-3555, <u>www.nfpa.org</u>.
- National Electrical Code, NEC Handbook, 2011, National Fire Protection Association, (800) 344-3555, www.nfpa.org.
- National Electrical Safety Code, 2012, Institute of Electrical and Electronics Engineers, Inc., (732) 981-1721, www.ieee.org.
- Code of Federal Regulations 29 CFR Part 1926 (OSHA), with latest available amendments, U.S. Government Printing Office, (866) 512-1800, <u>https://www.osha.gov/pls/oshaweb/owastand.display\_st</u> andard\_group?p\_toc\_level=1&p\_part\_number=1926 OR

Code of Federal Regulations - 29 CFR Part 1926 Selections by PSI, with latest available amendments, (866) 589-3088, <u>www.psiexams.com</u> (See order form at the end of the Candidate Information Bulletin.)

- Ugly's Electrical References, George V. Hart, 2008, 2011, or 2014, Jones and Bartlett, (800) 832-0034, www.uglys.net
- American Electricians' Handbook, Croft, Hartwell, and Summers, 16th Edition, 2013, McGraw-Hill, (800) 262-4729, <u>shop.mcgraw-hill.com</u>



 Lineman's and Cableman's Handbook, Shoemaker and Mack, 12th Edition, 2011, McGraw Hill, (800) 262-4729, <u>shop.mcgraw-hill.com</u>

Candidates are responsible for bringing their own references to the examination center. Reference materials may be highlighted, underlined, and/or indexed prior to the examination session. However, references may not be written in. Any candidate caught writing in the references during the examination will be reported to the Board. Furthermore, candidates are not permitted to bring in any additional papers (loose or attached) with their approved references. References may be tabbed/indexed with permanent tabs only. Temporary tabs, such as Post-It notes, are not allowed and must be removed from the reference before the exam will begin. Scratch paper will be provided for calculations. Candidates will NOT be permitted to remove from the examination room ANY material that has been written on. (This would include books).

### LMC - LICENSED MASONRY CONTRACTOR

# of Questions	% Required to Pass	Time Allowed
70	73% (51 items)	200 minutes

### **CONTENT OUTLINE**

Subject Area	# of Items
Estimating and Plan Reading	7
Unit Masonry	10
Mortar and Grout	10
Accessories and Specialties	10
Stone	5
Tools	4
Restoration and Cleaning	4
Reinforced Masonry	6
Quality Assurance	6
Safety	8

### **REFERENCE LIST**

The reference material listed below was used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. **Except for Code books**, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based **only** on the edition of the Code book that is listed.

Candidates may use a silent, nonprinting, non-programmable calculator in the examination center.

This examination is OPEN BOOK.

The following reference materials <u>are</u> allowed in the examination center:

- International Building Code, 2012, International Code Council, (800) 786-4452, <u>www.iccsafe.org</u>
- ACI-530-08: Building Code Requirements and Specification for Masonry Structures and Related Commentaries, 2008, American Concrete Institute/American Society of Civil Engineers, <u>http://www.concrete.org/general/home.asp</u>,
- Modern Masonry Brick, Block, Stone, Clois E. Kicklighter, 8th edition (2015). The Goodheart-Willcox Company, (800) 323-0440, www.g-w.com.
- Code of Federal Regulations 29 CFR Part 1926 (OSHA), with latest available amendments, U.S. Government Printing Office, (866) 512-1800 or <u>https://www.osha.gov/pls/oshaweb/owastand.display\_st</u> <u>andard\_group?p\_toc\_level=1&p\_part\_number=1926</u> OR

Code of Federal Regulations - 29 CFR Part 1926 Selections by PSI, with latest available amendments, (866) 589-3088, <u>www.psiexams.com</u> (See order form at the end of the Candidate Information Bulletin.)*ASTM Masonry Standards* for the Building Industry, 2008, 6th edition, ASTM International, <u>www.astm.org</u>

- Indiana Limestone Handbook, 22<sup>nd</sup> edition, 2010, Indiana Limestone Institute of America, Bedford, IN 47421, <u>http://www.iliai.com/index.php?pageld=41</u>
- Repointing Mortar Joints in Historic Masonry Buildings, Robert C. Mack, and John P. Speweik, October 1998, Technical Preservation Services, National Parks Service, U.S. Department of the Interior, 2 Preservation Briefs, http://www.nps.gov/hps/tps/briefs/brief02.htm
- Cleaning Brickwork, June 2006, BIA Technical Notes on Brick Construction, Vol. 20, The Brick Industry Association, 1850 Centennial Park Drive, Reston, VA 20191, http://www.gobrick.com/html/frmset\_thnt.htm



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## **TENNESSEE CONTRACTOR EXAMINATION**

### **REGISTRATION FORM**

### Before you begin. . .

Read the Candidate Information Bulletin before filling out this registration form. You must provide all information requested and submit the appropriate fee. PLEASE TYPE OR PRINT LEGIBLY. Registration forms that are incomplete, illegible, or not accompanied by the proper fee will be returned unprocessed. Registration fees are not refundable or transferable.

1.	Legal Name:	First Name     Last Name     M.I.
2.	Social Security:	(FOR IDENTIFICATION PURPOSES ONLY)
3.	Mailing Address:	
		Number, Street     Apt/Ste
		City State Zip Code
4.	Telephone: Home	Office         -
5.	Email:	@
6.	Company Name:	

7. Examination: Please check the appropriate boxes of the examination(s) you are registering for.

\*Important: All candidates are required to take the Business & Law exam in addition to their appropriate trade portion. However, it is NOT necessary to take both portions on the same day.

Examination	Fee				
Business & Law ONLY	\$57				
BC - COMBINED - RESIDENTIAL/COMMERCIAL/INDUSTRIAL CONTRACTOR					
Trade Portion	\$57				
Business & Law	\$57				
BC-A - RESIDENTIAL CONTRACTOR					
Trade Portion	\$57				
Business & Law	\$57				
BC-B - COMMERCIAL CONTRACTOR					
Trade Portion	\$57				
Business & Law	\$57				
BC-b - SMALL COMMERCIAL CONTRACTOR					
Trade Portion	\$57				
Business & Law	\$57				
BC-C - INDUSTRIAL CONTRACTOR					
Trade Portion	\$57				
Business & Law	\$57				
BC-A, B - COMBINED - RESIDENTIAL/COMMERCIAL CONTRACTOR					
Trade Portion	\$57				
Business & Law	\$57				
BC-A, b (sm) - COMBINED- RESIDENTIAL/SMALL COMMERCIAL CONTRACTOR					
Trade Portion	\$57				
Business & Law	\$57				
BC-B, C - COMBINED - COMMERCIAL/INDUSTRIAL CONTRACTOR					
Trade Portion	\$57				
Business & Law	\$57				
CE - ELECTRICAL CONTRACTOR					
Trade Portion	\$57				
Business & Law	\$57				

Continued on the next page

CE-A, H - HIGH VOLTAGE ELECTRICAL CONTRACTOR					
Trade Portion	\$57				
Business & Law	\$57				
*CMC - FULL MECHANICAL CONTRACTOR					
Trade Portion *Must have pre-approval; see page 15)	\$57				
Business & Law	\$57				
*CMC-A - MECHANICAL PLUMBING CONTRACTOR					
Trade Portion (*Must have pre-approval; see page 7)	\$57				
Business & Law	\$57				
CMC-C - MECHANICAL - HVAC/REFRIGERATION CONTRACTOR					
Trade Portion	\$57				
Business & Law	\$57				
CMC-D - MECHANICAL - FIRE SPRINKLERS AND FIRE PROTECTION CONTRACTOR					
Trade Portion	\$57				
Business & Law	\$57				
LMC - LICENSED MASONRY CONTRACTOR					
Trade Portion	\$57				
Business & Law	\$57				
EXAMINATION REVIEW (Fee for an Exam Review session is \$57, regardless of how many exams are reviewed.)	\$57				

8. Total Fee Included: \$\_\_\_\_\_. You may pay by credit card, company check, cashier's check or money order. Make your check or money order payable to PSI and note your Social Security # on it.

If paying by credit card, check one: 🗆 VISA 🖾 MasterCard 🖾 American Express 🖾 Discover

9.

Card Verification No:	Exp. Date:				
Card Verification No:	The card verification number may be located on the back of the card (the last three digits on the signature strip) or on the front of the card (the four digits to the right and above the card account number).				
Billing Street Address:	Billing Zip Code:				
Cardholder Name (Print):	Signature:				
9. I am submitting the Exam Accommodation	Request Form (at the end of this bulletin) and required documentation.				
	tion provided on this registration form (and/or telephonically to PSI) is correct. I understand may result in denial of licensure. I have read and understand the examination information				
Signature:	Date:				
IF YOU ARE REGISTER	IF YOU ARE REGISTERING BY MAIL OR FAX, SIGN AND DATE THIS REGISTRATION FORM ON THE LINES PROVIDED.				
Complete and forward this registration form with the applicable examination fee to: PSI * ATTN: Examination Registration TN CO 3210 E Tropicana * Las Vegas * NV * 89121					

Fax (702) 932-2666 \* (800) 733-9267 \* TTY (800) 735-2929 \* www.psiexams.com

PSI may occasionally share your information with partners who have offers of interest to you. Please check this box if you do not wish PSI to share your information with these parties. Please note: PSI will never release your ID number or SSN number.  $\Box$ 

## Tennessee Plumbing Exam Pre-Approval Request



### BOARD FOR LICENSING CONTRACTORS

500 JAMES ROBERTSON PARKWAY, DAVY CROCKETT TOWER, 4<sup>TH</sup> FLOOR, NASHVILLE, TN 37243-1150 (615) 253-5741 / Website: <u>https://tn.gov/commerce/section/contractors-home-improvement</u>

Pre-Approval is required by the Tennessee Board for Licensing Contractors in order to take the Tennessee Mechanical Plumbing for <u>CMC-A</u> or <u>CMC</u>. Must provide verification of at least three (3) years plumbing work experience.

Prior to registering for exam with PSI, please return completed form and any applicable attachments to the Tennessee Board for Licensing Contractors by email, fax or may also send by mail to the above address. Once approved, the board will notify PSI by e-mail within 3 days.

### Exam Requested

□ CMC-A (Plumbing) □ CMC (Mechanical & Plumbing)					
Name:	Jr., Sr., I	II, IV / SSN:		·	
Address:					
		City		State	·
Telephone: () Cell (	)		_ Fax (	)	
Email Address:					
<ul> <li>Experience (Attach pages 2 and 3)</li> <li>Please attach verification from municipality/cour</li> <li>May attach a copy of plumbing license for the second second</li></ul>					2
<ul> <li>Are you an employee of a plumbing contractor?</li> <li>If yes, Name of Contractor:</li> <li>May attach a copy of W-2's from employee</li> </ul>					
<ul> <li>Do you have an Engineering Degree in the Plur</li> <li>If yes, attach copy of documentation in</li> </ul>	-			es	
Notarize I hereby certify, I am at least 18 years of age, have submitted within this request for approval to take plu					
Applicant Signature					
Affirmed, witnessed and subscribed before me this	day	of	, 2	20	
Notary Public Signature		My Commissio	n Expires:		

Please return to the <u>Board for Licensing</u> <u>Contractors</u>. Include "*Plumbing Exam Pre-Approval*" as the subject, and send by email or fax:

Email:Contractor.App@tn.govFAX:(615) 532-2868

\*In lieu of completing this page 2, you may attach copies of W-2's for the past three (3) years from employment with a plumbing contractor, or attach copy of active plumbing license from another municipality or government agency.

### Verification of Plumbing Work Experience and/or Local License Tennessee Plumbing Exam Pre-Approval Request

### **SECTION A**: To be completed by Plumbing Exam Applicant

Please provide verification of at least three (3) years plumbing work experience in order to be approved to take the Tennessee CMC-A (Plumbing) or CMC (Mechanical) exam.

Name:						
Address:						
Telephone: ()	C(	ell:()	Fax:(	)		-
Plumbing Exam Ap	plicant's Signature	:				
Pursuant T.C.A. § 62-6 work experience as a	6-111(I), the above na requirement in order to reciates your assistan	ned by Past Employer, med applicant is required b be approved to take the ce, time and cooperation.	to provide ve CMC-A or C	erification MC mech	of three (3 anical plur	<ol> <li>years plumbing mbing contractor's</li> </ol>
Section B - Comple	<u>ted by:</u>					
	oing Contractor:					
or I licensing Agend	CV (County/City/Municipal	lity Permit Office):				
		ourneyman			 er-	
☐ Endorsen ☐ Not Appli	nent: □State □City	SI DOther: DCounty D Other: type of experience verif			_ Date:	
Verification: It is my opinion, to t amount and type of p		vledge, the above name ience:	ed plumbing	exam a	pplicant h	nas the following
Experience:	□ 0 – 12 months	☐ More than 1 year	□ 3 years	or more		
Type of Plumbing:	□Sewage □Fixtures □Water Piping	□Backflow □Water Heater □Gas Piping	□Connec □Installat □Sprinkle	ion of App	oliances	)r
□ Other:			Irrigation			
Print N		Signature				Title
Note: Applicants request verifying plumbing work e		nay <u>not</u> sign <b>Section B</b> for th ant.	nemselves; mu	st be signe	d by the ap	propriate person

## Plumbing Work Experience

Tennessee Plumbing Exam Pre-Approval Request

Please list specific plumbing work demonstrating a total of at least **three (3) years' experience** (may copy and attach additional pages if needed). May attach a resume that includes same information as below.

1. Employed as:	Contractor/Plumber	□ Subcontractor	Employee of Contractor
Name of Employer; or Customer:		Date:/	/to//
Address:			
Telephone:()	Email:		
Type of Work Performed:			
2. Employed as:	□ Contractor/Plumber	□ Subcontractor	☐ Employee of Contractor
Name of Employer; or Customer:		Date:/	/to//
Address:			
Telephone:()	Email:		
Type of Work Performed:			
3. Employed as:	Contractor/Plumber	Subcontractor	Employee of Contractor
Name of Employer; or			Employee of Contractor     / to//
Name of Employer; or Customer:		Date:/	
Name of Employer; or Customer: Address:		Date:/	to/
Name of Employer; or Customer: Address: Telephone:()	Email:	Date:/	/to/
Name of Employer; or Customer: Address: Telephone:()	Email:	Date:/	/to/
Name of Employer; or Customer: Address: Telephone:() Type of Work Performed: 4. Employed as: Name of Employer; or	Email: Contractor/Plumber	Date:/	to
Name of Employer; or Customer: Address: Telephone:() Type of Work Performed: <b>4. Employed as:</b> Name of Employer; or Customer:	Email: Contractor/Plumber	Date:/	to/
Name of Employer; or         Customer:         Address:         Telephone:()         Type of Work Performed: <b>4.</b> Employed as:         Name of Employer; or         Customer:         Address:	Email: Contractor/Plumber	Date:/	



To place an order for one or more of the following items listed, you may:

**>** Order online at <u>www.psionlinestore.com</u>

### **Call the PSI Online store toll-free at (866) 589-3088**

### Note: prices are available online at www.psionlinestore.com

International Mechanical Code
International Building Code
International Plumbing Code
29 CFR Part 1926 Selections
International Residential Code for One- and Two-Family Dwellings
Carpentry and Building Construction
Contractor's Guide to Business Law and Project Management - Tennessee Edition
NFPA 72 - National Fire Alarm Code
Ugly's Electrical References
Roofing Construction and Estimating
Pipe and Excavation Contracting
NFPA 13 - Installation of Sprinkler Systems
Modern Masonry - Brick, Block, Stone
Modern Refrigeration and Air Conditioning
Mathematics for Plumbers and Pipefitters
Lineman's and Cableman's Handbook
Design and Control of Concrete Mixtures
American Electricians' Handbook

Please note: Inventory and pricing subject to change without notice.



All examination centers are equipped to provide access in accordance with the Americans with Disabilities Act (ADA) of 1990. Applicants with disabilities or those who would otherwise have difficulty taking the examination may request exam accommodations.

Candidates who wish to request exam accommodations because of a disability should fax this form and supporting documentation to PSI at (702) 932-2666.

#### Requirements for exam accommodation requests:

You are required to submit documentation from the medical authority or learning institution that rendered a diagnosis. Verification must be submitted to PSI on the letterhead stationery of the authority or specialist and include the following:

- **Description of the disability and limitations related to testing**
- > Recommended accommodation/modification
- > Name, title and telephone number of the medical authority or specialist
- **2** Original signature of the medical authority or specialist

Date:		Socia	l Security	/ or ID#:	
Legal Na	ime:				
	Last Name		First	Name	
Address:	:				-
	Street		Citv.	State. Zip Code	
Telepho	ne: ()		(	)	
	Home		Work		
Check a	ny exam accommodation	s you require (requests must	concur v	with documentation submitted):	
	Reader (as accommodat or learning disability)	ion for visual impairment		Extended time (Additional time requested:	)
	Large-print written exar	nination		Other	
	*Out-of-State Testing Re require additional docur	equest (this request does not nentation)			
	Site requested:				
	*You may email your out	t-of-state request to <u>OutofSta</u>	ateReque	st@psionline.com	
		and fax this form, along with nmodations@psionline.com.	n support	ing documentation, to (702) 932-2666	or email it to
				nail you confirmation of approval with ou back to schedule the examination v	

DO NOT SCHEDULE YOUR EXAMINATION UNTIL THIS DOCUMENTATION HAS BEEN RECEIVED AND PROCESSED BY PSI EXAM ACCOMMODATIONS. PSI 3210 E Tropicana Las Vegas, NV 89121