

INFORMATION BULLETIN
for
STATE OF OHIO
CONTRACTOR TRADES EXAMINATIONS

International Code Council



INTERNATIONAL
CODE COUNCIL®

*People Helping People
Build a Safer World™*

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National Contractor/Trades Examinations
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ICC Vision

Protecting the health, safety, and welfare of people
by creating better buildings and safer communities.

ICC Mission

Providing the highest quality codes, standards, products, and services
for all concerned with the safety and performance of the built environment.

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Note: Examination requirements, including registration/scheduling, dates, locations, fees and references are subject to change. For up-to-date information on ICC contractor trades examinations, go to www.iccsafe.org/contractor or call 1-888-ICC-SAFE (422-7233), ext. 33805.

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Examination registration/scheduling requirements, dates, locations, fees and references are subject to change. Please make sure that you have the most current candidate bulletin before registering for/scheduling any examination by visiting our web address at www.iccsafe.org/contractor.

About the ICC National Contractor Trades Examination Program

The International Code Council Contractor Trades Examination Program is a cooperative endeavor between ICC and participating states and jurisdictions.

Passing an ICC examination is not a license to practice and does not guarantee that a license will be granted. Instead, a passing score satisfies the testing requirement for licensing.

To acquire a license to practice, you must apply to a participating jurisdiction and meet all additional licensing requirements.

Additionally, some jurisdictions may not recognize all of the examination categories offered by this program. You are strongly encouraged to check with the specific licensing board where you wish to be licensed to determine whether it recognizes these examinations.

Before You Register for an Examination

- Step 1** Contact the Ohio Construction Industry Licensing Board (OCILB) for a licensing application, by mail or online at:
- Ohio Department of Commerce – Division of Industrial Compliance
Ohio Construction Industry Licensing Board
6606 Tussing Road, P.O. Box 4009
Reynoldsburg, OH 43068-9009
Telephone: 614-644-3493
www.com.state.oh.us/dic/lics/elicense.aspx
- Step 2** Complete the license application and mail it with a \$25 application fee in the form of a check or money order made payable to the Treasurer, State of Ohio at the address listed above. The license application fee is nonrefundable. Upon receipt of your application, OCILB will determine your eligibility to take the examination.
- Step 3** Once you have received confirmation of your eligibility, ensure that you have the most current examination information by going to www.iccsafe.org/contractor for the applicable examination information bulletin.
- Step 4** Read all the information contained in the examination information bulletin in its entirety.
- Step 5** Select the examination you need to take. You may want to contact the specific licensing board/agency, if you need clarification.
- NOTE:** OCILB approval must be secured prior to applying to take the licensing examination through ICC. Once OCILB approval is granted, you have one year from your approval date to pass both the trade and business and law sections of the examination. Each time you apply for a different trade, you must take and pass the business and law exam.
- Step 6** Review the examination content outline for the examination you need to take.
- Step 7** Determine the reference materials required for the examination and obtain the references. Study these references well in advance of taking the examinations.
- Step 8** Determine if the exam is administered electronically (computer-based exam) and/or by paper-and-pencil.
- Step 9** Follow the registration requirements for paper-and pencil examinations if you select to have the examination administered by paper-and-pencil or if the examination is only administered by paper-and-pencil. Follow the registration requirements for electronic/computer-based examinations if you select to have the examination administered electronically or if the exam is only administered electronically.
- Step 10** Pass the examination. Upon successful completion of your examination, you will be eligible to receive a license from the State of Ohio. If a candidate does not pass a written or electronic exam, in most cases, they must wait 10 days from the exam date to retake. However, a licensing agency/board may have specific retest requirements. Before registering to retake an examination you should refer to the specific examination information bulletin by going to www.iccsafe.org/contractor and contact the specific licensing board. To retake an electronic exam, contact LaserGrade at 1-800-211-2754 to reschedule/register to take the examination. If the examination is only administered by paper-and-pencil, you must wait until the next scheduled paper-and-pencil administration date and time to retake the examination.

Passing an ICC examination is not a license to practice and does not guarantee that a license will be granted.

Paper-and-Pencil Examinations

Registering

Upon approval by the State, you will be mailed an ICC examination registration packet that includes an examination registration application. Mail the completed examination registration application and fee to ICC at the address on the front of this booklet. *Failure to completely fill in your registration form or improper payment may delay processing. This may cause you to miss the exam date you have selected.*

Examination sites have a limited seating capacity. To ensure registration for the examination and date you have selected, return your completed registration application and fee as far in advance of the deadline date indicated on the registration application as possible. If your registration form is received after the deadline, you will be scheduled for the next available date at your selected site.

Registrations for ICC examinations are accepted on a first-come, first-served basis.

Confirmation

After ICC receives your completed registration application and pre-payment and verifies your eligibility, ICC will send you a letter by U.S. mail approximately two weeks prior to the examination date. This letter will confirm your examination date, testing site location, directions to the site, and the time of day you should be at the site. If you do not receive your confirmation letter from ICC within one week before the exam date, call ICC at 1-877-783-3926.

Your confirmation letter cannot be used as a form of identification for entrance to the examination. You must present an acceptable form of photo ID in order to take the ICC examination. An acceptable form of photo ID is your driver's license.

Dates and Locations

Paper-and-pencil exams are administered four times a year in the Columbus, Toledo, Cincinnati, and Cleveland general areas. The exact location of the site will be included in the confirmation letter that is sent to you about two weeks prior to the examination date.

Rescheduling and Refunds

If you are unable to attend the examination you registered for and would like a refund or to reschedule for another examination date, you must notify ICC in writing at least 14 days before the examination date for which you have registered. If you request to cancel or reschedule 13 or less days before the exam date you must contact ICC at: 1-888-ICC-SAFE (422-7233), extension 33805. ICC will then send you the applicable form to complete. You must complete this form and submit it to ICC along with a \$15 fee. If you do not send your request in writing to ICC before the exam date, you will lose your entire exam fee and will have to submit a new application with payment.

The following actions will result in forfeiture of your examination fee:

1. Attempting to cancel or reschedule your examination less than 14 days before your examination date.
2. Failing to appear at the examination site on your examination date.
3. Failing to have acceptable photo identification when you appear at the examination site. Acceptable photo identification is a driver's license. If you do not possess a driver's license, you will be required to provide two forms of ID issued by a federal or state regulatory agency. One of the two required forms of ID must be a photo ID the second form of ID can be your birth certificate or social security card, military ID, or passport.

Examination Results

ICC notifies all examinees of their examination results by U.S. mail. ICC will send your examination results to you within three weeks after the examination date.

All examinees that have passed ICC contractor/trades exams are included in ICC's Official Pass List for Contractor Examination on the ICC website at www.iccsafe.org/contractor.

Electronic Examinations

Registering

ICC electronic (computer-based) examinations are administered by LaserGrade, LP. To register for an electronic examination, call LaserGrade at 1-800-211-2754 between 6:00 a.m. and 5:00 p.m. Pacific time, Monday through Friday; or 6:00 a.m. to 2:00 p.m. on Saturday. A LaserGrade representative will take your name and information and will help you select the optimal test date and location for your schedule. Testing locations near you can be found at www.lasergrade.com/locate.shtml. Same-day, walk-in testing is not available.

Confirmation

The LaserGrade representative will give you a confirmation number when you register. You will need to provide this confirmation number at the testing site to be admitted to take the electronic examination. You will not be admitted to take the electronic examination without providing the confirmation number at the testing site.

Dates and Locations

ICC computer-based exams are administered Monday through Saturday, with the exception of holidays. Some testing centers are open daily, while others are open on specific days of the week. To access the most current information on testing centers, hours of operation, and test center code numbers, go to the LaserGrade website at www.lasergrade.com/locate.shtml. Test administrations are delayed or canceled only in emergencies. If severe weather or a natural disaster makes a test center inaccessible or unsafe, the test administration will be canceled.

Computer Experience

Even if you have never used a computer, you can still take an ICC electronic examination. Before you take the examination you will receive a short tutorial and introduction to taking the exam using the computer.

Once the examination begins, the questions and choice of answers are displayed on the computer screen along with clear, easy-to-follow, step-by-step instructions. The questions on the electronic examinations are the same type as on the paper-and-pencil examinations.

Rescheduling and Refunds

To change or cancel your reservation without monetary penalty, you must notify LaserGrade at least 24 hours before your scheduled exam date. When this is done, the fee from your first appointment will be applied to your new test date.

The following actions will result in forfeiture of your examination fee:

1. Attempting to cancel or reschedule your examination less than 24 hours before your examination date.
2. Failing to appear at the examination site on your examination date.
3. Failing to have acceptable photo identification when you appear at the examination site. Acceptable photo identification is a driver's license. If you do not possess a driver's license, you will be required to provide two forms of ID issued by a federal or state regulatory agency. One of the two required forms of ID must be a photo ID. The second form of ID can be your birth certificate or social security card, military ID, or passport.

Examination Results

When you have completed an ICC electronic examination, the examination proctor will provide you a printed test report with your unofficial test results. If you failed the exam, this test report may help you determine the areas you may need to focus your studies.

Official test results will be mailed to you from ICC within five working days. All examinees that have passed ICC contractor trades exams are included in ICC's Official Pass List for Contractor Examination on the ICC website at www.iccsafe.org/contractor.

Examination Fees

First attempt: computer-based test (both parts)	\$ 120
Retake: computer-based test (either or both parts)	\$ 120
First attempt: paper-and-pencil test (both parts)	\$ 70
Retake: paper-and-pencil test (both parts)	\$ 126
Retake: paper-and-pencil test (trade only)	\$ 70
Retake: paper-and-pencil test (business/law only)	\$ 56

All candidates must take and pass both parts of the exam (trade and business/law).

Receipt of Your License

The State will issue a license to all candidates who achieve a passing score on both the trade and business/law examinations. Submit a copy of your passing result notifications; proof of \$500,000 in liability insurance with the actual policy number listed; and a \$25 license issuance fee made payable to *Treasurer, State of Ohio* to OCILB only after you have passed both examinations.

Administrative Rules and Procedures

Special Needs

Paper-and-Pencil Examinations

If you require special accommodations under the Americans with Disabilities Act (ADA) for a paper-and-pencil examination, contact the ICC Contractor/Trades Examination Services at 1-888-ICC-SAFE (422-7233), extension 33805, to obtain an accommodation request form.

Electronic Examinations

If you require special accommodations under the Americans with Disabilities Act (ADA) for a computer-based examination, you may ask for special services at the time you are scheduling your testing appointment with the LaserGrade representative.

Passing Score and Release of Results

The passing score on examinations is 70.

ICC examinations are not designed to discriminate among passing examinees. Therefore, if you pass an ICC examination, your actual score is not indicated/reported. ICC only sends written notification that you have passed the examination, and your name is added to ICC's Official Pass List for Contractor Examination on the ICC website at www.iccsafe.org/contractor.

Cancellation of Examination Scores

On rare occasions, circumstances may render examination scores invalid. ICC reserves the right to cancel or withhold examination scores if, in the sole opinion of ICC, there is adequate reason to question the validity of certain results.

Canceled scores may result from two situations:

1. Doubts raised about the validity of certain scores because of suspected misconduct, such as giving or receiving help or removing materials or notes from the examination site. In such circumstances, examinees will be expected to cooperate in an investigation of their scores.
2. Some scores may be rendered invalid because of circumstances beyond the examinee's control, such as faulty examination materials.

These situations will be thoroughly investigated. When such occurrences result in cancellation of examination scores, ICC will arrange for retesting at a time and place convenient to all concerned with no additional cost to the examinees.

Comments

Paper-and-Pencil Examinations

If you desire to comment about any matter related to the examination, you may complete the comment form provided at the conclusion of the examination, or you may submit written comments to ICC by e-mail at contexam@iccsafe.org or by mail to the address listed on the front cover of this bulletin. Please be sure to include the examination taken, the examination date, the center location, and your complete name and address with your comment.

Electronic Examinations

If you desire to comment about any matter related to the examination, you may complete the survey provided at the conclusion of the examination, or you may submit written comments to ICC by e-mail at contexam@iccsafe.org or by mail to the address listed on the front cover of this

bulletin. Please be sure to include the examination taken, the examination date, the center location, and your complete name and address with your comment.

Challenges

An examinee may challenge the ICC examination or examination process. A challenge does not change or have any effect on the final exam score unless an error is found. An examination review session allows the individual to only see the questions missed and incorrect responses. Note-taking is not allowed during a review session, and no instruction is provided.

Paper-and-Pencil Examinations

Challenges must be in writing and include a completed and signed challenge form and a separate and complete statement of each item upon which the challenge is based. Challenges must be submitted to ICC by mail and postmarked no later than 60 days following the date of the examination. Written requests to receive a challenge form may be sent by e-mail to contexam@iccsafe.org or by mail to the below address.

An examinee that has failed the examination and scored within ten (10) points of passing may submit a written request to review his or her examination materials to prepare the challenge. There is a fee for a review session. ICC must receive the completed and signed challenge form before the request for a review session.

Written requests for an examination review session and additional information, including applicable fee, may be sent by e-mail to contexam@iccsafe.org or by mail to:

International Code Council
Certification and Testing Services
Candidate Services Coordinator
900 Montclair Road
Birmingham, AL 35213

Electronic Examinations

An examinee that has failed the examination and scored within ten (10) points of passing may contact LaserGrade directly to challenge his score. There is a fee for a review session. For more information on the challenge process for electronic examinations, please contact LaserGrade at 1-800-211-2754.

Test Site Regulations

ICC and participating licensing agencies are committed to safeguarding the public health, safety, and general welfare. ICC's copyrighted testing materials and stringent testing security procedures, including videotaping, ensure participating licensing agencies that examinees who have passed an ICC contractor/trades examination possess knowledge governing the trade in which the examinee seeks to be licensed.

To ensure the security of examination materials, reliable test results, and public confidence in the integrity of licensed trade professionals, the following rules and procedures are strictly enforced at all ICC examinations:

1. Examination will be given only on the date and time scheduled.
2. For electronic examinations, examinees must possess and provide their testing confirmation number (that was provided by the LaserGrade representative at the time of exam registration) at the testing site on the exam day in order to be admitted to take the exam.
3. Examinees must possess and present a valid photo ID issued by a state or federal regulatory agency, i.e., a driver's license, passport, etc.
4. Metal detectors may be randomly used to search examinees entering and/or leaving the exam room.
5. Proctors may inspect all materials an examinee carries into and from the exam room.
6. ICC randomly videotapes examination sessions.
7. Individuals who pass an examination cannot retake the examination they passed.
8. Individuals who failed an examination may take the exam again. Individuals must wait 10 days before they take the exam again. However, a licensing agency/board may have specific retest requirements. Before registering to retake an examination, you should refer to the specific examination information bulletin by going to www.iccsafe.org/contractor or contact the specific licensing agency/board.
9. Examinees are allowed to bring/use only approved references. References must be in their original forms; however, notes written in ink in the code sections, highlighted code sections, and permanent tabs are allowed.
10. Examinees are not allowed to communicate, verbally or nonverbally, with each other during the examination.
11. Examinees are not allowed to share references.
12. Examinees are not allowed to bring ballpoint pens, colored pencils, highlighters, felt pens, writing paper, or briefcases into the exam room.
13. Examinees are not allowed to bring and use calculators with print capability and/or that perform electrical functions or store electrical formulas.
14. Examinees are not allowed to bring copying, recording, or photo devices into the exam room.
15. Examinees are not allowed to bring cells phones, beepers, radios, MP3 players, and/or PDAs into the exam room.
16. Examinees are not allowed to write or mark in or on their reference books during the examination.
17. Examinees are not allowed to leave the building and return to the exam room while the examination is being administered.
18. If an examinee wishes to leave the exam room for any reason, he or she must receive permission from the proctor and turn in all his or her examination materials and references to the proctor.
19. Only one examinee at a time is allowed outside the exam room.
20. Examinees are not allowed additional test time for time spent outside the exam room.
21. Visitors are not allowed in the exam room.

Proctors

The proctors are responsible for administering the examination and ensuring security of the exam materials at the test site. Proctors are well-trained and will treat candidates with respect, and in turn, will expect the same level of respect from candidates. Threatening a proctor or interfering with the administration of an examination at *any* time may be considered a criminal offense and punishable by law.

Proctors cannot discuss contents of the exam or reference materials with a candidate.

Proctors have the right to remove a candidate's test and require the individual to leave the building if the candidate:

1. Gives or receives help during the examination;
2. Attempts to remove exam materials or notes from the room;
3. Creates a disturbance; or
4. Copies or attempts to copy examination questions or answers.

If a candidate is dismissed from an examination for an infraction of the policies presented in this booklet, the candidate will not be entitled to a refund, may jeopardize his or her right to take an ICC examination in the future, and may face possible prosecution.

Examinees

Examinees are responsible for arriving at the exam site on the proper date, at the proper time, with proper identification, and with approved reference(s). Approved examination references are listed with the individual examination outlines found in this bulletin. References for examinations are not supplied by ICC or the testing center.

Examinees must know, understand, and adhere to all of the regulations governing ICC examinations as listed in this bulletin.

Examinees may bring the following items to the examination:

1. Three No. 2 pencils (sharpened)
2. Correct/approved reference(s)
3. Eraser
4. Magnifying glass
5. Eyeglasses, if necessary
6. Architects' scale or rule
7. Watch - no alarms allowed during exams
8. Battery-operated calculator that is nonprogrammable. The calculator **cannot** be capable of storing alpha-numeric numbers, performing electrical functions, or storing examination information, nor have ribbon or paper printing capabilities. Solar-powered calculators are not recommended. Lighting conditions are such that there is usually insufficient light to power a solar calculator. Calculator malfunctions are not grounds for challenging test results or requesting additional time. Special seating is not available to accommodate solar calculators or electrical supply cords.
9. Foreign language/English dictionaries, if needed

Before the Exam

Examinees should arrive at the exam site at least 30 minutes before the examination is scheduled to begin. Remember, it is your responsibility to already be familiar with the regulations governing ICC examinations.

The ICC proctor will check your identification, have you sign in, and may assign you a seat. The examination proctor will explain the procedures for taking the examination, answer questions related to taking the exam, and provide notification to begin the exam.

During the Exam

For paper-and-pencil-administered examinations, the proctor provides a 30-minute and a 10-minute time-remaining alert and announcement when time has expired. For electronically-administered examinations, there is a clock on the computer that counts down to display the time remaining. When the time limit is up for the examination, the computer will end the test.

After Completing the Exam

If you complete an examination before the time limit has expired, you may conclude your examination appointment and leave.

Participating States and Jurisdictions

States and jurisdictions participating in the ICC National Contractor Trades Examination Program are subject to change as is the range of qualifying examinations offered. For the most up-to-date information on participating states and jurisdictions, go to the ICC website at www.iccsafe.org/contractor.

Trial Questions

ICC **may** place a small number of experimental or “trial” questions on each examination. The purpose of including these experimental test questions within the examination is to expand and improve the bank of questions from which future examinations will be drawn. This is a common practice used by many national and state examination programs and is a critical step in ensuring the continued reliability and validity of the examination program. Trial questions are not identified on the examination and are NOT counted when computing your scores. Under no circumstances will your score be affected by trial test questions. ICC has ensured that there is sufficient time provided to answer the examination questions as well as the trial test questions.

Raw And Scaled Scores

A raw test score is the actual number of items answered correctly. A scaled score is simply an adjustment of a raw score to report comparable results when test form difficulties vary, since candidates take different forms of each examination over a period of time. The number of questions needed to pass an exam varies based on the difficulty of the exam.

When these adjustments in raw passing scores are driven by form difficulties, the effect is to produce an equitable and constant passing standard. Score reports are then provided in a scaled passing score that does not change from form to form. The score for each examination has been standardized as a “scaled score,” with 70 being the minimum passing score.

The number of correct answers necessary to achieve a scaled score of 70 indicates a level of minimum acceptable competency as determined from item statistics based on candidate responses, and systematic analysis by a committee of individuals selected because of their expertise on the subject being used for the content. Your score, therefore, is based on the number of questions answered correctly relative to the difficulty level of the exam as compared to other exam forms. Candidates who pass will be notified with the word “PASS.” Those who fail will be given a numeric score and diagnostic information on their performance in major content areas of the exam. The diagnostic report cannot be used to calculate scores; it is a general indication only.

Hand Scoring

All answer sheets are carefully scanned and scored using state-of-the-art electronic equipment. However, candidates may choose to have their answer sheets scored by hand. If you select this service, contact ICC for an application at 1-877-STD-EXAM. Complete the application including the date and location of your administration, along with a \$25 cashier's check or money order (made payable to ICC) to ICC at the address listed on the front of this booklet. Hand scoring does not expedite your test scores.

Certificate Of Achievement

A Certificate of Achievement suitable for framing is available to all passing candidates for \$15. Commemorate your success with this 8-1/2" x 11" certificate, perfect for framing. Contact CC at 1-877-STD-EXAM to order.

Examination Outlines

The percentage of questions for each content area is subject to change and may not equal 100% due to rounding.

The contractor licensing examinations are based on the following content areas. Under each category you will find the number of questions in each content area for that examination. Some of the test questions will not be taken from the listed references, as they will be based on practical knowledge and experience. **You must pass both a trade and the business/law examination to be eligible for licensure in each trade for which you apply.**

You may obtain purchase information on the code and reference books and the Business and Law Manual by calling 1-800-786-4452 or by visiting the ICC Store at www.iccsafe.org.

EXAM ID: 500 EXAM: ELECTRICAL CONTRACTOR **One Part - Open Book - 100 Multiple-Choice Questions - 5-Hour Time Limit**

Major Content Area	No. of Questions	Percent of Exam
Service Transformers and Equipment	20	20 %
Wiring Methods and Installation	18	18 %
Cabinets, Panelboards, Switchboards, Boxes, and Conduit Bodies	5	5 %
Conductors	15	15 %
Control Devices	6	6 %
Motors and Generators	11	11 %
Utilization Equipment and Devices	8	8 %
Special Occupancies and Uses	11	11 %
Miscellaneous	6	6 %

Approved Reference: *National Electrical Code*, 2005 Edition

EXAM ID: 501 EXAM: PLUMBING CONTRACTOR **One Part - Open Book - 100 Multiple-Choice Questions - 4-Hour Time Limit**

Major Content Area	No. of Questions	Percent of Exam
Plumbing Fixtures	7	7 %
Plumbing Materials and Fundamentals	10	10 %
Traps, Cleanouts, and Interceptors	10	10 %
Special Requirements	3	3 %
Drainage Requirements	19	19 %
Vents	17	17 %
Water Distribution	11	11 %
Plan and Analysis	23	23 %

Approved References: *International Plumbing Code*, 2003 Edition **OR** *Ohio Plumbing Code*, 2005 Edition; and *International Fuel Gas Code*, 2003 Edition

**EXAM ID: 502 EXAM: HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)
CONTRACTOR**

One Part - Open Book - 100 Multiple-Choice Questions - 4-Hour Time Limit

Major Content Area	No. of Questions	Percent of Exam
Theory, Terminology, and General Requirements	15	15 %
Heating Systems	20	20 %
Vents and Connectors	10	10 %
Refrigeration	15	15 %
Piping Systems	5	5 %
Air Ducts Systems	10	10 %
Ventilation Systems	10	10 %
Operation Procedures, Maintenance, and Repairs	10	10 %
Special Equipment and Appliances	5	5 %

Approved References: *International Mechanical Code*, 2003 Edition **OR** *Ohio Mechanical Code*, 2005 Edition; *International Fuel Gas Code*, 2003 Edition; and *Modern Refrigeration and Air Conditioning*, 18th Edition

EXAM ID: 503 EXAM: REFRIGERATION CONTRACTOR

One Part - Open Book - 60 Multiple-Choice Questions - 3-Hour Time Limit

Major Content Area	No. of Questions	Percent of Exam
Theory, Terminology, and General Requirements	9	15 %
Compressors and Types of Systems	6	10 %
Evaporators, Condensers, and Cooling Towers	6	10 %
Piping Inspection and Field Testing	6	10 %
Air Duct and Insulation	6	10 %
Electrical and Controls	12	20 %
Refrigerants	6	10 %
Operation Procedures	3	5 %
Maintenance and Repairs	6	10 %

Approved References: *International Mechanical Code*, 2003 Edition **OR** *Ohio Mechanical Code*, 2005 Edition; and *Modern Refrigeration and Air Conditioning*, 18th Edition

EXAM ID: 504 EXAM: HYDRONICS CONTRACTOR
One Part - Open Book - 50 Multiple-Choice Questions – 2.5-Hour Time Limit

Major Content Area	No. of Questions	Percent of Exam
Water Supply Treatment and Feed	5	10 %
Fuels and Firing Methods	4	8 %
General Code Application and Venting	14	28 %
Piping, Pumps, and Valves	11	22 %
Controls and Control Systems	9	18 %
Maintenance and Repairs	3	6 %
Tests and Inspections	4	8 %

Approved References: Ohio Administrative Code, Chapter 4101:4 (*this document can be obtained from the Ohio Construction Industry Licensing Board at 614-644-3493*); *International Mechanical Code*, 2003 Edition **OR** *Ohio Mechanical Code*, 2005 Edition; *Boiler Operator's Guide*, 4th Edition; *Steam Plant Operations*, 8th Edition; and *Modern Hydronic Heating for Residential and Light Commercial Buildings*, 2nd Edition

EXAM ID: 505 EXAM: BUSINESS AND LAW
One Part - Open Book - 50 Multiple-Choice Questions - 2-Hour Time Limit

Major Content Area	No. of Questions	Percent of Exam
Business Structure, Practices, and Licensing	5	10%
Estimating and Bidding	7	14 %
Contracts and Acceptance	3	6 %
Project Management and Planning	7	14 %
Financing and Recordkeeping	6	12 %
Insurance and Bonding	5	10 %
Labor Laws and Personnel Policies	5	10 %
Tax, Lien Laws, and Dispute Resolution	7	14 %
Safety and OSHA Compliance	5	10 %

Approved Reference: *Ohio Contractors Reference Manual*

Format of Questions

The following is representative of the style and format of ICC contractor trades examination questions. The questions below are not intended to represent content, references, or questions that will be on any examination. They are not intended nor should they be referenced or used as a study tool for examinations.

Electrical

1. What is the minimum dimension required by code for a working space containing live parts on both sides of the workspace that will require examination and maintenance while energized and operating at 500 volts?

- a. 8 sq. ft.
- b. 6 sq. ft.
- c. 5 sq. ft.
- d. 4 sq. ft.

Answer: d. 4 sq. ft. NEC, 2005; Table 110.26(A)(1)

Plumbing

2. The maximum vertical spacing for hangers supporting copper pipe is _____ ft.

- a. 6.5
- b. 8.5
- c. 9
- d. 10

Answer: d. 10 IPC, 2003; Table 308.5

Hydronics

3. A low-pressure steam-heating boiler cannot by code deliver hot water at pressures exceeding _____ psi.

- a. 10
- b. 15
- c. 20
- d. 30

Answer: b. 15 IMC, 2003; Definitions

HVAC

4. An auxiliary condensate drain pan shall have a minimum depth of _____ in. and shall not be less than _____ in. larger than the unit or the coil dimensions in width and length.

- a. 1; 2
- b. 1.5; 3
- c. 2; 4
- d. 3; 6

Answer: b. 1.5; 3 IMC, 2003; Section 307.2.3

Sample Questions (continued)

Refrigeration

5. Type F steel pipe shall not be used for refrigerant lines having an operating temperature less than _____ degrees F.
- a. 32
 - b. 0
 - c. -10
 - d. -20

Answer: d. -20

IMC, 2003; Section 1107.4.1

Test-taking Tips

ICC examinations have been professionally designed to test the extent of your trade experience and knowledge of the codes. If you have prepared for the examination, you will have ample time to answer all the questions and review your answers.

The following tips and recommendations may assist you in preparation for your exam.

1. Do not try to cram all your studying into one night before the examination.
2. On the morning of the examination, avoid the last-minute rush. Get up early, have breakfast, and leave early for your examination.
3. Don't spend too much time on any one question. If you have no idea which answer is correct, eliminate any options which you know are incorrect, mark an answer on the answer sheet that you think might be correct, then go on to the next question. If you finish before time is called, you can then go back to the questions you have doubt about.

Frequently Asked Questions

1. How do I get signed up to test?

Refer to page 3 of this bulletin before you register for an examination. Once you have read the information on page 3 of this bulletin in its entirety, you can refer to page 5 for paper-and-pencil examinations and page 7 of this bulletin for computer-based examinations. For the most up-to-date information on registration/scheduling requirements, dates, locations, fees, and references, go to www.iccsafe.org/contractor.

2. Can I sign up to test over the phone?

Yes, for computer-based testing. Telephone registration is not available for paper-and-pencil examinations.

3. If I pass an ICC examination, does that mean I am licensed to practice?

No. Passing an ICC examination is not a license to practice and does not guarantee that a license will be granted.

4. When can I test?

Computer-testing is administered frequently at over 1,000 sites across the nation. Paper-and-pencil examinations are administered on a limited basis. To get the most updated information, go to www.iccsafe.org/contractor.

5. Can I get my results over the phone?

No. Examination results are confidential and private information. ICC and the test administrator will not release/provide exam results over the telephone.

6. When will I receive my results?

Electronic exams:

Unofficial results for examinations taken electronically are available immediately after completion of the examination. Official results for electronic examinations are mailed to the examinee within five working days after the exam date.

Paper-and-pencil exams:

Results for examinations taken by paper-and-pencil are mailed within three weeks of the exam date.

7. How can I get licensed?

If you want to get licensed in a city and/or state that requires that you take and pass an ICC exam, you will need to check with that city and/or state on what other requirements they have for you to get licensed with them. ICC only does testing and is not a licensing agency.

8. What are the references for the examination?

Examination information, including approved references, is listed in this bulletin starting on page 17.

9. Do you offer any courses for the exams?

No. However, ICC does offer courses and study references on the International Codes®. The courses are not intended to serve as preparation to pass examinations, nor do they ensure you will pass an examination. The courses may allow you to increase your knowledge on code provisions and you are welcome to take them, but keep in mind that the content and instruction are not specific to contractor exams or contractor exam content.

10. Can I review my exam that I recently took?

You can review only those questions on the exam that you marked incorrectly. A review is for the purpose of completing a challenge. There is a fee for a review session. You can review an exam if you scored within 10 points of passing. The process for challenging your test results can be found on page 10 of this bulletin.

11. How often can I test?

You may test as many times as needed until you pass the exam. You must wait 10 days between each time you test for the same examination. Candidates may retake only the examination category (business/law or trade) they did not pass if taken within one year from the OCILB approval date. If you wish to retake an exam, contact LaserGrade at 1-800-211-2754 to reschedule to take the examination via computer. If you took a paper-and-pencil exam and wish to retake via paper-and-pencil again, you must wait until the next scheduled paper-and-pencil administration date and time.

12. Can I reschedule or cancel my exam?

For computer-based testing, you must contact LaserGrade at 1-800-211-2754 at least 24 hours prior to your exam date and time. For paper-and-pencil examinations, you must notify ICC in writing at least 14 days before the examination date for which you have registered. If you request to cancel or reschedule 13 or less days before the exam date you must contact ICC at 1-888-ICC-SAFE (422-7233), extension 33805. ICC will then send you the applicable form to complete. You must complete this form and submit it to ICC along with a \$15 fee. If you do not send your request in writing to ICC before the exam date, you will lose your entire exam fee and will have to submit a new application with payment.

13. Can I get a copy of my results mailed to me?

Yes, but there is a fee to get a copy of the result letter. Contact ICC at 1-888-ICC-SAFE (422-7233), extension 33805, for fee information and to receive the applicable request form to complete.

14. Are the examinations open book?

Yes, exams are open book. To get the most updated information on examinations, go to www.iccsafe.org/contractor.

15. How long are the examinations?

The length and allowed time varies depending upon the subject matter. To get the most updated information on examinations, go to www.iccsafe.org/contractor.

16. What type of question format will be included in the examination?

Test questions are in four-option, multiple-choice format, with one answer on each question scored as correct.

17. Should I guess if I don't know the answer to a question?

There is no guessing penalty, so answer every question.

18. What is considered a passing score?

Most exams have a passing score of 70, with the exception of 75 for the Master Electrician examination. Refer to page 9 of this bulletin for specific information. To get the most updated information, go to www.iccsafe.org/contractor.

19. What materials can I bring with me to use during the examination?

The following materials are allowed at test sites:

- Clock or watch to keep track of time
- Three No. 2 pencils (sharpened)
- Eraser
- Eyeglasses, if necessary
- Architect's scale or rule
- Magnifying glass
- Approved reference(s). Refer to approved examination references starting on page 17 of this bulletin. Photocopies of reference materials may not be used. Tabbing with loose pieces of paper or adhesive notes is not permitted. Any pencil notes are not permitted.
- Portable calculator. Calculators must be silent, battery-operated, and nonprogrammable. Calculators with alpha (letter entry) capability are not permitted. Solar-powered calculators are not recommended. Lighting conditions are such that there is usually insufficient light to power a solar calculator. Calculator malfunctions are not grounds for challenging test results or requesting additional time. Special seating is not available to accommodate solar calculators or electrical supply cords.
- Foreign-language/English dictionaries, if needed

Examination requirements, fees, and references are subject to change. Please make sure that you have the most current candidate bulletin before scheduling any examinations by visiting our web address at www.iccsafe.org/contractor.