

**The Commonwealth of Kentucky  
Office of Housing, Buildings, and Construction  
Mechanical Examination Program**



**International Code Council  
Candidate Information Booklet**

International Code Council  
Birmingham Regional Office  
Contractor Examination Services Department  
900 Montclair Road \* Birmingham, Alabama 35213  
Phone: 1-877-STD-EXAM \* Fax: (205) 599-9884  
[www.iccsafe.org/contractor](http://www.iccsafe.org/contractor)

Revised October 2005  
©2005 International Code Council

## Table of Contents

Introduction.....	2
Electronic Examinations.....	3
Applying For An Electronic Examination	
Electronic Examination Results	
Electronic Examinations Rescheduling And Refunds	
Cancellation Of Examination Scores.....	4
Examination Challenge Process.....	5
Level I CBT	
Level II CBT	
Registering For An Examination Challenge	
Regulations Governing ICC Examinations.....	7
ICC Proctors' Responsibilities	
Your Responsibilities	
Procedures At The Examination Site	
Examination Categories	11
Examination Outlines.....	12
Sample Questions.....	16
Test-Taking Tips.....	17

**All reference material may be purchased by contacting ICC toll free at 1-888-699-0541.**

## Introduction

The International Code Council (ICC) Standard Examination Program is a cooperative endeavor between ICC the Commonwealth of Kentucky. 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 the following address:

Commonwealth of Kentucky  
Environmental and Public Protection Cabinet  
Office of Housing, Buildings, and Construction  
101 Sea Hero Drive / Suite 100  
Frankfort, Kentucky 40601-5405  
Phone: 502-573-0365, ext.133 or 128

Individual examination results will be sent by mail directly to examinees within three weeks after the examination date. Additionally, candidates or jurisdictions can verify if the candidate passed an examination by going to the ICC Web site, [www.iccsafe.org/contractor](http://www.iccsafe.org/contractor).

If you plan to attend an examination and require special accommodations under the *Americans with Disabilities Act* (ADA), contact the ICC Examination Services Department at 1-877-STD-EXAM to obtain an accommodation request form. You will be required to submit written verification of your disability prior to scheduling your examination.

All examination applications and accommodation request forms must be returned to the following address:

ICC Contractor Examination Services  
900 Montclair Road  
Birmingham, Alabama 35213

## **Electronic Examinations**

LaserGrade, ICC's electronic examination vendor, offers computer-based ICC examinations at 700 ICC-approved examination sites nationwide. Examinees can choose the examination site and time of examination that best suit their needs.

### **No Computer Experience Necessary**

Even if you have never used a computer before, you can still take an ICC electronic examination without fear.

The electronic examination begins with a short tutorial and sample test that teaches you how to take the examination and enables you to practice. You don't have to begin the examination until you are totally comfortable.

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. You simply press a key or tap the mouse to mark your answer, change your answer, move to the next question, or go back to any question. The questions on the electronic examinations are the same type as on the paper-and-pencil examinations.

### **Applying For An Electronic Examination**

There are two ways to apply for an ICC electronic examination. You can call ICC at 1-877-STD-EXAM for an application or go to our Web site at [www.iccsafe.org/contractor](http://www.iccsafe.org/contractor) and click on the state of your choice.

You can apply and pay for your application on-line or by fax with an approved credit card. Or you can send ICC an application and fee payment by mail. Applications cannot be taken over the telephone. Your application must be thoroughly and completely filled in before your eligibility can be verified. Once your eligibility is verified, ICC will notify you on how to schedule your examination with LaserGrade.

\_\_\_\_\_ If you wish to take your electronic examination at the Office of Housing, Building, and Construction in Frankfort, request site code: 40699 when you schedule your examination with LaserGrade.

### **Electronic Examinations Rescheduling And Refunds**

Once you have been placed on the eligibility list and contacted for scheduling, you must schedule your examination within 60 days or forfeit your exam fee. You may reschedule your electronic examination by contacting LaserGrade at least 24 hours before your scheduled exam date and time.

If you wish to cancel your examination, you must contact ICC at least 24 hours before your scheduled exam date and time. You may receive a refund on your canceled examination if you submit a written request, including your signature, to ICC within 30 days of canceling your examination. If no written request is received, you may forfeit your fee.

### **Electronic Examination Results**

When you have completed an ICC electronic examination, your unofficial test results are immediately displayed on the computer screen. Your official test results will be mailed to you from ICC within five working days. If you failed the examination, you will receive an in-depth diagnostic letter at the site designed to help you determine the areas where you need more study.

### **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 its sole opinion, there is adequate reason to question the validity of certain results. Canceled scores may result from two situations:

1. Doubts may be 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 examinees' control, such as faulty examination materials. These situations will be thoroughly investigated. When such occurrences result in cancellation of examinees' scores, ICC will arrange for re-testing at a time and place convenient to all concerned at no additional cost to the examinees.

## **Examination Challenge Process**

### **Level I CBT: Cost \$50.00**

Challenge sessions must be registered by the deadline date and can only be provided for an examination administered during the most recent quarter. You must have scored within 10 points of passing in order to qualify for a challenge session. The ICC staff shall analyze all challenges.

### **Level II CBT: Cost \$50.00**

You may send a written request to include a challenge on the agenda for consideration at the next regularly scheduled advisory board meeting. ICC will notify you in writing of the determination of the advisory board.

Any individual may question any aspect of any ICC examination by sending a letter to ICC requesting that the appropriate advisory board review the issue. The letter should explain the issue in detail and be returned to ICC at least 30 days prior to the board meeting. The letter must be signed, dated, include the correct return address, and sent to the address located on the front of this booklet.

### **Registering For An Examination Challenge**

Failing candidates can call ICC to request a "Request For Challenge Form." If you did not pass the examination and your score was within 10 points of passing, you may complete and return the "Request For Challenge Form" to ICC within 90 days of your examination date to schedule a challenge for that examination.

Challenge sessions are held once each quarter at scheduled sites or at other times as arranged by ICC. A challenge session offers you the opportunity to review the examination questions you missed. Credit can only be given if you are successful in proving the answer you gave is correct.

During the Level II examination challenge session, the rules and procedures are as follows:

You are provided with a copy of the questions that you missed and the answers that you selected.

You are provided with a copy of your actual answer sheet.

You are provided with an examination comment sheet. All comments should be written on this sheet.

Security procedures are the same as for a regular ICC examination.

Code books are allowed throughout the entire challenge session.

Answers to examination questions are not provided or discussed.

At the end of the challenge session, all challenge packet items must be returned to the proctor in the return envelope provided.

Examination challenge sessions are limited to a 1.5-hour period.

## Regulations Governing ICC Examinations

ICC and participating jurisdictions are committed to safeguarding the public health and safety of communities. ICC's copyrighted testing materials and its stringent testing security procedures ensure participating jurisdictions that examinees who have passed an ICC test possess a working knowledge of the codes 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. The examination will be given only on the date and time scheduled.
2. ICC requires examinees to possess and present a photo I.D. issued by a state or federal regulatory agency, i.e., a driver's license or passport.
3. Metal detectors may be randomly used to search examinees entering and/or leaving the exam room.
4. Proctors may inspect all materials an examinee carries into and from the exam room.
5. ICC randomly video records examination sessions with cameras that may or may not be within sight.
6. Anyone that has passed an examination cannot take the same examination again within three years.
7. A person failing an examination must wait 10 days before he or she can take the examination again.
8. Examinees are not allowed to bring or use reference books other than those indicated on the examination outline. These books must be in their original forms, however, class notes written in ink in the code sections, highlighting, and permanent tabs are allowed.
9. Examinees are not allowed to communicate, verbally or non-verbally, with each other during the examination.

10. Examinees are not allowed to share reference books.
11. Examinees are not allowed to bring ballpoint pens, colored pencils, highlighters, felt pens, writing paper, or briefcases into the exam room.
12. Examinees are not allowed to bring and use calculators that perform electrical functions or store electrical formulas.
13. Examinees are not allowed to bring any device that could be used to make copies of or record exam materials.
14. Examinees are not allowed to bring cell phones, beepers, or radios into the exam room.
15. Examinees are not allowed to write or mark in or on their reference books during the examination.
16. Examinees are not allowed to leave the building and return to the exam room while the examination is being held.
17. 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 reference books to the proctor.
18. Only one examinee at a time is allowed outside the exam room.
19. Examinees are not allowed additional test time for time spent outside the exam room.
20. Visitors are not allowed in the exam room.

### ICC Proctors' Responsibilities

The ICC proctor and assistant proctors are responsible for administering the examination and ensuring security at the test site. ICC proctors are well trained and experienced professionals. They will treat all examinees with respect and, in turn, will demand the same level of respect from examinees.

Threatening or interfering with an ICC proctor during or after the administration of his or her duties may be considered a criminal offense punishable by law.

1. Proctors cannot discuss with examinees the contents of the examination or reference books.
2. Proctors are not authorized to make any exceptions to

the rules and regulations put forth in this information booklet

3. Proctors will take up an examinee's test and require him or her to leave the room if the examinee –

- Gives or receives assistance during the examination;
- Creates a disturbance during or after the examination;
- Attempts to remove examination materials or notes from the exam room, or;
- Copies or attempts to copy examination questions or answers.

If an examinee is dismissed from an examination for any infraction of the regulations as presented in this booklet, the examinee may not be entitled to a refund, may jeopardize his or her right to any ICC examinations in the future, and may face possible prosecution.

### **Your Responsibilities As An Examinee**

Your first responsibility as an examinee is to arrive at the exam site on the proper date, at the proper time, with the proper identification, and with the correct reference/code book(s). The correct reference/code book(s) are listed with the individual Examination Outlines found in this booklet. ICC cannot furnish you with reference/code book(s) for the examination

Your second and equally as important responsibility is to know, understand, and adhere to all of the regulations governing ICC examinations as listed in this booklet.

Lastly, you are responsible for bringing to the examination the items listed below. If you fail to meet any of your responsibilities, you may either be barred from taking the examination, significantly reduce your chance of passing the examination, or be dismissed from it with consequences.

Examinees should bring the following items to the

examination.

1. #2 pencils for calculations.
2. The correct reference/code book(s).
3. A magnifying glass.
4. Eyeglasses, if necessary.
5. A battery-operated calculator. It must NOT be programmable, capable of performing electrical functions, have paper tape, and store examination information.

Special seating is not available to accommodate solar calculators or electrical supply cords.

### **Procedures At The Examination Site**

Don't take a chance on arriving late. 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. Once everyone is seated, the proctor will explain the procedures for taking the examination and answer any questions.

When you are ready, the proctor will tell you to begin the examination. 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. If you finish before the time limit is up, you may quit the examination.

The proctor will provide you with an unofficial letter. If you fail it will contain diagnostic information to assist you in preparing to take the test again.

You will receive your official results from ICC within five working days following the examination. Once again, do not call ICC requesting your examination results.

## Examination Categories

**Master HVAC**– two examinations, one on Business and Law and one covering technical HVAC knowledge and codes. Requires candidates to pass both examinations for Licensure. License permits holder to contract and engage in the practice of HVAC within the Commonwealth of Kentucky.

**Journeyman HVAC Mechanic**– license permits holder to install, maintain, alter, remodel, and repair heating systems, ventilation systems, hydronic systems, burner service, or cooling systems. Must be employed under the supervision of a Master HVAC Contractor.

**Limited Journeyman Installer Mechanic**– license permits holder to install any system of air conditioning, warm-air heating and ventilation, including startup of equipment and any duct system necessary to make an air-conditioning system complete. Must be employed under the supervision of a Master HVAC Contractor.

**Limited Journeyman Duct Mechanic**– license permits holder to fabricate, install, repair, or extend duct work.. Must be employed under the supervision of a Master HVAC Contractor.

**All reference material may be purchased by contacting ICC toll free at 1-888-699-0541.**

## Examination Outlines

**Reference materials may be purchased by contacting ICC toll free at 1-888-699-0541.**

**Master HVAC:** One Part \* Open Book \* 100 Questions \* 4-Hour Time Limit \* References Allowed During The Exam –International Fuel Gas Code , 2000 Edition; International Mechanical Code , 2000 Edition; Kentucky Residential Code, 2002 Edition; National Electrical Code , 2002 Edition;& Modern Refrigeration and Air Conditioning, 18<sup>th</sup> Edition or Refrigeration & Air Conditioning Technology, 5<sup>th</sup> Edition

<u>Major Content Area</u>	<u>No. Of Questions</u>	<u>Percent Of Exam</u>
HVAC Principles, Terminology, Administration & Safety	16	16.00
HVAC Installation Requirements	14	14.00
Venting, Duct & Combustion Air Gas Piping	18	18.00
8	8	8.00
HVAC Electrical	13	13.00
Boilers, Exhaust Systems, & Fire Protection	11	11.00
Plan Analysis	20	20.00__

**Journeyman HVAC Mechanic:** One Part \* Open Book  
 60 Questions \* 3-Hour Time Limit \* References Allowed  
 During The Exam -- International Fuel Gas Code, 2000  
Edition; International Mechanical Code, 2000  
Edition; Kentucky Residential Code, 2002 Edition;  
National Electrical Code, 2002  
Edition; & Modern Refrigeration and Air  
Conditioning, 18<sup>th</sup> Edition or Refrigeration & Air  
Conditioning Technology, 5<sup>th</sup> Edition

<u>Major Content Area</u>	<u>No. Of Questions</u>	<u>Percent Of Exam</u>
HVAC Principles, Terminology, Administration & Safety	14	23.32
HVAC Installation Requirements	8	13.32
Venting, Combustion Air & Gas Piping	15	24.99
Boilers, Ducts, & Electrical	10	16.66
Plan Analysis	13	21.65

**Limited Journeyman Installer Mechanic:** One Part \* Open  
 Book \* 50 Questions \* 3-Hour Time Limit \* References  
 Allowed During The Exam -- International Fuel Gas Code,  
2000 Edition; International Mechanical Code, 2000  
Edition; Kentucky Residential Code, 2002 Edition;  
National Electrical Code, 2002  
Edition; & Modern Refrigeration and Air  
Conditioning, 18<sup>th</sup> Edition or Refrigeration & Air  
Conditioning Technology, 5<sup>th</sup> Edition

<u>Major Content Area</u>	<u>No. Of Questions</u>	<u>Percent Of Exam</u>
HVAC Principles, Terminology & Safety	10	20.00
HVAC Installation Requirements	10	20.00
Gas Piping	8	16.00
Duct	6	12.00
Electrical	2	4.00
Venting	7	14.00
Plan Analysis	7	14.00

**Limited Journeyman Duct Mechanic:** One Part \* Open Book \* 60 Questions \* 3-Hour Time Limit \* Reference Allowed During The Exam -- International Mechanical Code , 2000 Edition; International Fuel Gas Code , 2000 Edition; Kentucky Residential Code, 2002 Edition; and SMACNA HVAC Duct Construction Standards, 1995 2<sup>nd</sup> Edition

<u>Major Content Area</u>	<u>No. Of Questions</u>	<u>Percent Of Exam</u>
Duct System Materials	4	6.66
Combustion Air	6	9.99
Exhaust Systems	12	19.99
Fresh Air & Ventilation Systems	12	19.99
Grease Hoods	8	13.32
Supply & Return Duct Systems	10	16.66
Gas Appliance Venting	8	13.32

**Business & Law:** One Part \* Open Book \* 30 Questions  
1.5-Hour Time Limit \* Reference Allowed During The Exam  
- Kentucky Contractors Business And Law Reference Manual

<u>Major Content Area</u>	<u>No. Of Questions</u>	<u>Percent Of Exam</u>
Business Structure		
Practices & Licensing	3	9.99
Estimating & Bidding	4	13.32
Contracts & Acceptance	2	6.66
Project Management & Planning	4	13.32
Financing & Record Keeping	4	13.32
Insurance & Bonding	3	9.99
Labor Law & Personnel Policies	3	9.99
Tax, Lien Laws, & Dispute Resolution	4	13.32
Safety & OSHA Compliance	3	9.99

**Sample Questions**

**Mechanical Questions**

1. A low-pressure water-heating boiler cannot by code deliver hot water at pressures exceeding \_\_\_\_ psi.
  - a. 30
  - b. 20
  - c. 15
  - d. 10

**Answer:** c. 15     IMC, 2000 Definitions

2. An auxiliary condensate drain pan shall have a minimum depth of \_\_\_ inch(s) and shall not be less than \_\_\_ inches larger than the unit or the coil dimensions in width and length.
- 1 & 2
  - 1.5 & 3
  - 2 & 4
  - 3 & 6

**Answer:** b 1.5 & 3    IMC, 2000 307.2.3

## Test-Taking Tips & Recommendations

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 help you better prepare for your examination.

1. Do not try and cram all your studying into one night before the examination.
2. Beginning two weeks before the day of your examination, spend two hours each evening studying the codes.
3. The night before your examination, have a relaxing evening and go to bed early.
4. On the morning of the examination, avoid the last-minute rush. Get up early, have breakfast, and leave early for your examination.
5. Think positive thoughts on the way to your examination. Tell yourself, "I've studied for this exam. I'm ready for it. I can pass it."
6. As you are taking the examination, carefully read each question. Ask yourself, "What code section do they want to see if I know?" Then, read the question a second time. If you're not sure of the correct answer, eliminate the answers you know are wrong.
7. Don't spend too much time on any one question. If you have no idea which answer is correct, circle the question in your exam booklet so you can come back to it if you have time.