

MASC Certification Examinations

Candidate Information Bulletin

FREQUENTLY ASKED QUESTIONS

- 1. How DO I REGISTER TO TEST? To schedule for testing, go to <u>https://www.provexam.com/schedule</u>. You may also call us at 866-720-7768. <u>Click here</u> for more information about registering.
- 2. WHERE CAN I TEST? You may test at any one of Prov's testing centers. <u>Click here</u> for a current list and directions to each of our South Carolina testing centers.
- 3. How MUCH DOES IT COST? The cost to take the tests for the MASC certification program is **\$100.00** per test.
- 4. WHEN DO I GET MY TEST RESULTS? Prov's scoring system will grade your exam immediately upon completion of your test and will automatically forward the results to the state board. The Board will mail you your score.
- 5. ARE THERE ANY STUDY AIDS? Yes, in our <u>bookstore</u> we sell practice examinations to help you prepare for your test.
- 6. WHAT IS ON THE TEST? <u>Click here</u> for information about the available examinations.

MORE QUESTIONS

Please read through this bulletin completely for answers to your questions. If you still have unanswered questions, you may contact us at the following:

For Certification Questions	For Testing Questions -
-	Prov, Inc.
MASC	150 W Civic Center Dr,
1411 Gervais Street	Suite 601
Columbia, SC 29201	Sandy, UT 84070
Ph: (803) 933-1209	Ph: (866) 720-7768
Fax: (803) 933-1299	Fax: (877) 228-3926
masctrades@sc.rr.com	www.provexam.com
Hours: 8:30 am - 5 p.m.	Hours: 8 a.m 8 p.m.

GENERAL TESTING INFORMATION

This Candidate Information Bulletin provides you with information about the testing and application process for becoming certified with the Municipal Association of South Carolina (MASC). To be certified, you must pass a test to confirm that you have attained at least a minimum level of knowledge regarding the principles, practices. statutes and regulations governing construction in South Carolina. The MASC has authorized Prov to develop and administer their certification testing program. Prov provides tests through a network of computer testing centers in South Carolina as well as other States. This bulletin has been developed to help explain the rules and processes candidates will need to undertake to complete the testing requirement for their certification.

Prov is not authorized to make the determination of which test(s) candidates must take. If a candidate is unsure which test is needed for the certification being sought, resolve this question by contacting the Municipal Association of South Carolina (MASC) before registering. If candidates take the wrong test, the test fee will not be refunded.

EXAMINATION CATEGORIES

The following is an alphabetical listing of the tests administered by Prov for certification for MASC. All tests are open book and are timed. When you apply for your test, you will be provided detailed information about each test you are required to take for certification. This information will describe the content of the test as well as provide information regarding study materials.

Below is a list of available tests.

- HARV (Master Mechanical)
- Journeyman Unlimited A/C
- Journeyman Electrician
- Journeyman Electrician (Spanish)
- Journeyman Pipefitter
- Journeyman Plumber

- Master Electrician
- Master Electrician (Spanish)
- Master Gasfitter
- Master Pipefitter
- Master Plumber
- Master Residential Electrician
- Master Residential Plumber

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TESTING WITH PROV

Your exam will be administered by computer at one of Prov's testing centers. Prov's testing system is easy to use and requires no specific computer experience to take the test.

The following link will take you to a short video that demonstrates Prov's testing system: https://youtu.be/h3T9svnIdLY.

WHERE TO TAKE YOUR EXAM

You may take your examination at any of Prov's testing facilities nationwide.

Prov has established six (6) testing centers within South Carolina where candidates can take their examinations. These testing centers are located in Charleston, Columbia, Conway, Greenville (2), and Greenwood. Site addresses, testing availability, and drive directions are provided at the end of this bulletin.

HOW TO SCHEDULE ONLINE

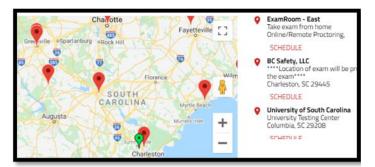
- 1. To schedule online, navigate to the following URL: <u>https://www.provexam.com/schedule</u>
- 2. Enter your identifying information into the system. The State has already shared your testing information with Prov. We need to locate your information within our system.

Follow the on-screen fields to enter your <u>Known</u> <u>Candidate ID</u> and your <u>Last Name</u>. The Candidate ID will be provided to you on your registration letter received from the Board. The Candidate ID will begin with 200, and will contain 10 digits. Please enter all of the numbers.

Then, enter your last name and select the **Retrieve Details** button.

- On the Welcome Screen, you will schedule a Date, Time, and Location for your exam by selecting the link labeled:
 - Find suitable time and venue

4. The scheduling system will display a map to graphically show where the different testing centers are located. Select a testing center from the list of centers to the right of the map.



- 5. Select the SCHEDULE link to check the calendar for the testing center.
- 6. Select a test **date** and **time** from the calendar that matches your schedule.
- Confirm your selected date and time and select Add to Cart.
- 8. Proceed to payment. If you have provided an email address, the invoice for your exam payment will be automatically emailed to you.

If you have any problems with online scheduling, give us a call at (866) 720-7768.

SCHEDULING BY PHONE

To schedule for an examination by phone, candidates should contact Prov toll free at 866-720-7768. Prov scheduling staff is available 8:00 a.m. through 6:00 p.m. ET, Monday through Friday.

Candidates should be prepared to provide the Prov scheduling staff with their name, Prov Candidate ID and their zip code. Once Prov confirms the candidate's identity, Prov staff will search the database for the next available testing session at the candidate's preferred testing location and will provide candidates with any alternate locations that may be in close proximity to their address.

Once candidates are scheduled, Prov staff will email them information regarding their testing schedule.

CANCEL/RESCHEDULING POLICY

If you need to change or cancel their testing appointment, you must contact Prov at least **three (3) business days** prior to your scheduled test date. Rescheduling is free if Prov is notified by the deadline. If you fail to appear for their test or fail to cancel or reschedule your testing session by the close of business three days prior to their scheduled test date, you will forfeit your exam fees.

PREPARING FOR YOUR EXAMS

The certification examinations that candidates will take are designed to test what you should know as you begin operations in the construction field. The test questions used on the tests have been prepared by contractors and cover the wide range of topics candidates would normally encounter in their particular field. If candidates have worked in construction for some period of time in a variety of different settings, they likely have experienced much of what will be found on their test. On the other hand, if the candidates' experience is limited (not only in years but in the variety of work performed) then it is likely they may want to spend time increasing their knowledge by studying areas in which they are less familiar. For all candidates, the reality is that people forget those things they don't use, and over time a candidate's knowledge in some areas may have decreased.

Prov recommends that candidates prepare for their tests by familiarizing themselves with the exam references with emphasis on the subject areas listed in each test description. Candidates who are familiar with their reference materials will spend less time searching for answers during the test. When preparing for the test, remember that hand-written notes are not allowed in a reference book used for testing. Candidates are encouraged to prepare their test materials by highlighting text or placing permanent tabs on important pages.

It is NOT mandatory that candidates purchase any study materials in preparation for their tests; however, all tests permit the use of authorized study materials and candidates may be at a disadvantage if they do not bring those materials with them to their testing session. At a minimum Prov recommends that candidates have their own code books related to their tests which may be useful to candidates after their testing is complete.

PURCHASING REFERENCE MATERIALS & STUDY GUIDES

Most reference books can also be purchased by phone or online through the following companies. Shipping charges will apply. Brick and mortar locations are indicated, but candidates should call to verify that orders are ready for pickup.

Examination Preparation Course Providers and Book Suppliers.

You will be provided with a list of reference books when you apply for your test. You can also go to our website for this information. Many of the books for your examination are available from Prov using the following information.

Prov Bookstore

10234 South 2460 East Sandy, Utah 84092 <u>https://www.provexam.com/shop/</u> Toll Free: 866-720-7768

If candidates need assistance in ordering any study materials, they may contact Prov at 866-720-7768.

Most reference books can also be purchased by phone or online through the following companies.

- @ Home Prep, Inc.
 900 East Hill Ave, Suite 380, Knoxville, TN 37915 www.contractor-licensing.com
 800-952-0910
- AAA Construction School, Inc.
 34 Arlington Road South, Jacksonville, FL 32216
 www.aaaconstructionschool.com
 800-741-7277 or 904-722-9994
- American Contractors Exam Services
 737 Southern Hwy, Mineral Wells, WV 26150
 www.examprep.org
 800-992-1910
- Builder's Book Depot
 1001 East Jefferson Rd, Ste 5, Phoenix, AZ 85034
 www.buildersbookdepot.com
 800-284-3434 or 602-252-4050

- Florida Licenses and Corporations, Inc. 1150 NW 72nd Ave, #720, Miami, FL 33126 www.floridalicensesandcorporations.com 305-446-3442
- International Code Council

900 Montclair Rd, Birmingham, AL 35213 4051 Flossmoor Rd, Country Club Hills, IL 60478 5360 Workman Mill Rd, Whittier, CA 90601 11711 W 85th St, Lenexa, KS 66214 www.iccsafe.org 800-786-4452

- My Pearson Store http://www.mypearsonstore.com 800-947-7700 (Opt. 5)
- North American Contractors Association www.infonaca.com 336-540-0149

Reference Materials Available from Prov

Candidates can purchase the following reference books directly from the Prov Bookstore. For these reference materials candidates may place their orders by phone, online at www.provbookstore.com, or using the Bookstore Order form attached to this document.

- <u>2012 Study Guide for Structural Steel</u>
- Advanced Mechanical Study Guide
- Basic Safety
- HVAC Basics for Contractors
- Intermediate Mechanical Study Guide
- Florida Business and Law Study Guide for Contractors
- Masonry and Sitework for the Residential Contractor
- Plumbing Basics for Contractors
- Study Guide for Excavation Contractors
- Study Guide for Insulation
- <u>Study Guide for Residential Carpentry &</u> <u>Repair</u>
- Study Guide for Siding & Finish Carpentry
- Study Guide for Utilities Contractors

PRACTICE EXAMS AVAILABLE FROM PROV

Prov also offers practice examinations in several exam categories. Practice examinations cost \$25.00 each and may be ordered either by phone or online at https://www.provexam.com/en-us/shop

Practice examinations prices do not include tax nor shipping.

Candidates must be sure to use the correct shipping option when ordering. Prov provides practice exams for the following tests:

- Journeyman Electrical
- Master Electrical
- Journeyman Plumber
- Master Plumber

TEST DAY RULES AND PROCEDURES

Check-in Deadline

The doors to each testing center will open at least 15 minutes before all scheduled testing appointments in order to check candidates into the testing center. You should plan to arrive early to make sure you are seated by the time the testing begins.

If you arrive late, AND the testing session has already begun, YOU WILL BE TURNED AWAY, will forfeit your exam fees, and will be required to reschedule for a future testing date.

Proof of Identity

Upon arriving at the testing center, you will be required to show a government-issued, photo-bearing identification. The photo-bearing ID must be current and valid. Forms of valid photo-bearing ID are a driver's license, passport, or military ID.

You will also be required to sign a test center log and will be photographed by the test center staff. If you cannot produce a valid government-issued photo ID, refuse to participate in signing the test center log, or refuse to be photographed, you will be dismissed from the testing center and forfeit all testing fees for that testing session.

If you do not have a photo ID, you may still present a valid State driver's license without a photo, a State ID card without a photo that is issued by the DMV, or a birth certificate.

Prohibited Items

No cameras, recorders, watches, cell phones or other communication devices are allowed in the testing room. Talking and smoking are not allowed in the testing room.

Approved Items

You may bring the following approved items into the testing center:

- Pencils.
- Calculator. Only simple 4-function calculators are permitted. PDAs, tablets, cell phones or other special calculators are NOT permitted.
- Approved References. (See information below).

Reference Material Rules

All examinations are designed to allow you to use **authorized** references while taking their exams. For a list of what reference materials are authorized for the exams, please refer to the exam description for the candidate's exam. All reference materials will be checked by the Prov test administrator prior to the candidates being permitted access to the testing room.

You should prepare your reference materials using ONLY the following methods.

- Highlighting
- Attaching permanent tabs

Reference materials which do not meet the following guidelines will not be allowed in the testing room. These guidelines are in place to ensure that every candidate is tested fairly and that no candidate has access to unapproved resources.

- Handwritten notes are NOT allowed in any portion of a reference book and will need to be erased prior to using the materials.
- Moveable tabs are NEVER permitted in a reference book.
- A reference book CANNOT contain Post-it notes.
- Photocopied documents CANNOT be added to a reference book.
- Photocopied versions of a reference book are NEVER permitted.
- Test preparation study guides are NOT approved references and are NOT permitted in the testing center; this includes practice examinations.

We ask that you leave all unauthorized materials in your car or vehicle. If you are caught using unauthorized materials during testing, these materials will be confiscated, your testing will be terminated with fees forfeited, and the Department will be notified of your dismissal from the exam.

During the testing process you MAY NOT:

- Share reference materials during testing.
- Highlight, underline, mark or write any kind of information in their reference materials during testing.

Visitor Policy

No one other than the candidate will be allowed in the testing room. Non-testing visitors are NOT permitted to wait in the lobby while candidates' test.

Unethical Conduct Policy

Any individual caught giving or receiving assistance during or after the examination or caught using unauthorized materials during the examination will be reported directly to the Department. Those caught in the act of cheating will be dismissed from the examination and their testing results will be frozen.

Furthermore, the candidate will forfeit the examination fees paid. Finally, anyone caught with test questions in their possession, either during or following the examination will be prosecuted by Prov for theft of copyrighted testing materials.

RESULTS REPORTING

Upon completion of a test, you will be given a score result while at the testing center. There is no charge for the on-site scoring and tests will be scored within one minute. Candidates participating in this certification program can also access their scores at any time (24/7) online by going to our website at www.provexam.com.

Because the testing process is a requirement for certification with the MASC candidates automatically consent to permit Prov to share their test results with the Municipal Association of South Carolina.

RETESTING POLICY

Failed examinations can be retaken according to the Municipal Association of South Carolina rules. Candidates cannot retake an exam once they have passed that exam unless required by MASC.

REVIEWS & PROV'S ACCEPTED PAYMENT METHODS

Reviews are intended to help candidates audit their testing results by allowing them to see which questions were missed.

Candidates may request a review of their exam after failing an exam category two (2) times. To be eligible for a review, candidates must score within 10% of the required 70% passing score. The review for all tests is 1-1/2 hours in length.

During the review candidates will be provided a printout of the questions they missed, and the answers chosen in response to those questions.

The review will be conducted under the same testing conditions as the exam using the same test security rules.

The cost of the review is **\$80.00** (includes tax) for each test reviewed. Candidates will request or schedule a review using the same methods described earlier for scheduling.

Review fees are collected by Prov. Payment for exams should be made directly to Prov. Please visit the State of Alabama HACR Contractor Board website for a complete schedule of fees.

Candidates paying for any other services provided by Prov can use the following methods of payment:

- Money Orders
- Cashier's Checks
- Certified Checks
- Credit Cards (Amex, Discover, Master Card, Visa)

No personal or company checks will be accepted and all registrations that include personal or company checks will be returned without processing.

EXAM CHALLENGE PROCESS

If during an exam or review, the candidates encounter a question they think is inaccurate or otherwise incorrect, they are encouraged to submit an Exam Comment to Prov detailing why they feel the question is in error.

Candidates testing on computer may make their comments in the testing system. Candidates who are reviewing an exam will automatically be provided with an Exam Comment form. Prov staff will review each comment within two weeks of submittal. Should any comment result in a change to a test question and/or candidate score, Prov will report the change to the State of Alabama HACR Contractor Board. The Board will notify the candidate of the score change and issue a new result letter. Detailed answers to questions or comments are not provided for test security purposes.

HAND SCORE REQUEST

Prov ensures the accuracy of our exam results. Our computer system is designed to identify and report any potential error in data collected from an exam session. If you would like to have your score reassessed for accuracy, you can request a Hand Score by calling Prov at 1-866-720-7768 and asking for a Hand Score Request Form.

A Hand Score Request form requires a signature and must be mailed to Prov. Forms must be received by Prov no later than ninety (90) days after your examination administration date and must be accompanied by a copy of your original score letter.

Once a Hand Score is received, Prov Staff will process the request within seven (7) to ten (10) business days.

During the Hand Score process a staff member will ensure that your answers were properly recorded and scored by comparing the captured answers to the exam key. Upon completion of the Hand Score, we will provide a letter by mail to report the outcome of the reassessment.

The cost of the hand score is \$25.00 (includes tax).

PROV'S NON-DISCRIMINATION STATEMENT

Prov provides equal access to its exams and testing programs for all eligible persons. Although individual jurisdictions that Prov represents are wholly responsible for determining eligibility of candidates, it is the policy of Prov to maintain an environment free of discrimination and to prohibit discrimination and harassment against any person on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and veteran, marital or family status.

Harassment of Prov program participants, proctors, staff or candidates will not be tolerated. If candidates wish to express concerns about discrimination, they should contact Prov at 866-720-7768 or write to: Prov, Inc., 5200 NW 43rd St., Suite 102-167, Gainesville, FL 32606.

SPECIAL ACCOMMODATIONS

Prov complies with the Americans with Disabilities Act (ADA) in providing special accommodations for candidates that require additional assistance during the testing process.

If candidates feel that they qualify for a special accommodation during testing, they should contact Prov at (866) 720-7768. Prov will require written documentation from a licensed physician or psychologist documenting the disability and further require a request describing the requested remedy. Prov will then work directly with the candidates to make the accommodations they will need in order to complete their examination.

SAMPLE TEST QUESTIONS

The following are sample questions that reflect the format and style of the questions found on tests. They are not intended to reflect the content of the exam you will take.

- 1. Employers are required to notify employees of changes in policies affecting all of the following EXCEPT:
 - a. Pay schedules.
 - b. Vacation allowance.
 - c. Health benefits.
 - d. Promotion opportunities.
- 2. The accounting method that recognizes income and expenses only when money is received or paid is called:
 - a. PCM Method.
 - b. Accrual Method.
 - c. Cash Method.
 - d. Cost-Comparison Method.
- 3. If 15-amp circuits were used, the NEC would require a 2000 square foot house to have a MINIMUM of how many branch circuits?
 - a. 2
 - b. 3
 - c. 4
 - d. 5
- 4. Equipment that is electrically connected to a telecommunications network is required to be listed in accordance with section ____ of the NEC.
 - a. 110.16
 - b. 240.6
 - c. 800.18
 - d. Chapter 9, Table 5(A)
- 5. Duct systems installed in single family dwellings must be sized per
 - a. ACCA Manual D.
 - b. ACCA Manual J.
 - c. SMACNA Manual R.
 - d. SMACNA Manual N.

- 6. What is the recommended MAXIMUM spacing of nails when installing drywall on a ceiling?
 - a. 6" o.c.
 - b. 7" o.c.
 - c. 8" o.c.
 - d. 12" o.c.
- 7. Which of the following types of joint reinforcement is NOT used to tie connecting cavity walls and intersecting walls?
 - a. Z-tie
 - b. Box tie
 - c. Hardware cloth
 - d. Ladder type joint reinforcement
- 8. What is the recommended concrete cover over #6 steel reinforcing in areas exposed to the weather?
 - a. 3"
 - b. 2"
 - c. 1.5"
 - d. 1"

ANSWERS TO SAMPLE QUESTIONS

- 1. **D** Promotion opportunities.
- 2. **C** Cash Method.
- 3. **C** 4
- 4. **C** 800.18
- 5. A ACCA Manual D.
- 6. **B** 7" o.c.
- 7. **D** Ladder type joint reinforcement
- 8. **B** 2"

TESTING SITE AVAILABILITY

You may take your exam at any one of Prov's testing centers. Prov has established six (6) testing centers within South Carolina where candidates can take their examinations.

You can also take your exam at home using Prov's Examroom[®] service.

What is Examroom?

Examroom is a remote test monitoring service that allows you to take your test on your own computer at your home. You schedule the test the same way you would an in-person testing site; by selecting your preferred test date and time. Then, on test day, you log into the Examroom website and request to start your exam. A test proctor will greet you over your computer, will verify your identity, take your picture, and observe you throughout the testing process.

How to decide whether to use Examroom? Not every computer system is capable of taking a test on Examroom. The following are the MINIMUM requirements that your computer system would need to meet in order to qualify to take your test using the Examroom service:

- Operating system on computer needs to be recent (less than 3-4 years old)
- Works on a MAC, PC, or Chromebook
- Need either a Chrome or Firefox browser (Chrome works best)
- Need a functioning computer web-camera and microphone
- Need a good consistent Internet connection capable of uploading files in excess of 3 Mbps

Please use the following links to do a system check **before you schedule** your exam to make sure your computer system will allow you to take a test using this system.

https://examroom.ai/systemtest/

If your system does not allow you to test at home, don't worry, we have some great testing locations that are not too far away.

Fixed Testing Locations

The sites shown below are fixed locations where you make take your exam. The asterisk (*) on the chart shows which days of the week the exams are available for scheduling. Note that sites may change as needed. Please refer to the current online scheduling system to find available testing times for each location.

Location	Monday	Tuesday	Wednesday	Thursday	Friday
Charleston - BCS	*	*	*	*	*
Columbia - USC	*	*	*	*	*
Conway - CCU	*	*	*	*	
Greenville - BJUP	*	*	*	*	*
Greenville - GTC	*	*	*	*	*
Greenwood - PTC	*	*	*	*	

TEST SITE LOCATIONS

Prov has established six (6) testing centers within South Carolina where candidates can take their examinations. These testing centers are located in **Charleston**, **Columbia, Conway, Greenville (2), and Greenwood.** Please refer to the individual list for each site for its testing availability and directions.

Prov has established the following testing centers within South Carolina where candidates can take their tests.

1. BC Safety, LLC

Location of exam will be provided to candidates one week before the exam Charleston, SC 29445

 University of South Carolina University Testing Center
 1600 Hampton Street, Suite – 406 Columbia, SC 29208

3. Coastal Carolina University

Coastal Science Center, Room 101 301 Allied Dr. Conway, SC 29526

- BJU Press Testing Center 1430 Wade Hampton Blvd. Suite 211A Greenville, SC 29609
- Greenville Technical College
 Distance Education Test Center Building 112
 506 South Pleasantburg Drive
 Greenville, SC 29606
- Piedmont Technical College PTC - Continuing Education Building 313 North Emerald Road Greenwood, SC 29646

EXAM DESCRIPTIONS

HARV (Master Mechanical)

Install, maintain, repair, alter or extend air conditioning, refrigeration, heating, and ventilation systems, unlimited in horsepower or tons, including all duct systems, sheet metal, incinerators and all appurtenances, apparatus or equipment used in connection therewith, also piping, ductwork, insulation of piping, vessels and ducts.

Number of Questions	120
Time allowed (hours)	4.5
Subject Area	# Quest.
General Knowledge	22
Piping	20
Equipment	16
Maintenance	22
Plan Reading	10
Systems & Sizing	30

References

- <u>Advanced Mechanical Study Guide, 2nd edition</u>, 2nd. ISBN: 9781323725184. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com.
- <u>HVAC Basics for Contractors,3rd Edition</u>, 3rd Edition. ISBN: 13:9781323725146. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com.
- <u>Intermediate Mechanical Study Guide</u>, 2015. ISBN: 9781323725221. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com.

- International Building Code, 2018. ISBN: 978-1-60983-735-8. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. Available at @iccsafe.org.
- <u>International Energy Conservation Code</u>, 2018. ISBN: 978-1-60983-749-5. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. available @ICCsafe.org
- <u>International Fuel Gas Code 2018</u>, 2018. ISBN: 978-1-60983-741-9. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. available @iccsafe.org
- <u>International Mechanical Code 2018</u>, 2018. ISBN: 978-1-60983-743-3. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. available @iccsafe.org
- <u>Manual N Commercial Load Calculations</u>, 2008. ISBN: 978-1892765383. Air Conditioning Contractors of America, 2800 Shirlington Road, Suite 300, Arlington, VA 22206. www.amazon.com
- <u>Residential Load Calculations Manual J</u>. Air Conditioning Contractors of America, 2800 Shirlington Road, Suite 300, Arlington, VA 22206. www.acca.org
- <u>SMACNA-Residential Comfort System Installation</u> <u>Standards Manual</u>, 7th. ISBN: 978-1617210648. Sheet Metal and Air Conditioning Contractors National Association, 4201 Lafayette Center Drive, Chantilly, VA 20151-1209. https://www.smacna.org/store/product/residential-comfortsystems-installation-standards-manual

Journeyman Unlimited A/C

Qualified to install, maintain, repair, alter, fabricate or extend air conditioning, refrigeration systems, piping vessels, warm air heating, low pressure boilers, ventilation systems, duct systems, insulation, and related appurtenances within a complete system unlimited in horsepower or tonnage.

Number of Questions	100
Time allowed (hours)	3
Subject Area	# Quest.
General Knowledge	22
Piping	10
Equipment	11
Maintenance	28
Plan Reading	5
Systems & Sizing	24

References

- <u>Advanced Mechanical Study Guide, 2nd edition</u>, 2nd. ISBN: 9781323725184. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com.
- <u>HVAC Basics for Contractors,3rd Edition</u>, 3rd Edition. ISBN: 13:9781323725146. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com.
- Intermediate Mechanical Study Guide, 2015. ISBN: 9781323725221. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com.
- International Building Code, 2018. ISBN: 978-1-60983-735-8. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. Available at @iccsafe.org.
- International Mechanical Code 2018, 2018. ISBN: 978-1-60983-743-3. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. available @iccsafe.org

Journeyman Electrician

A Journeyman Electrician is qualified and tested to perform work in the electrical trades while employed by a Master Electrician.

Number of Questions	70
Time allowed (hours)	3
Subject Area	# Quest.
Communication Systems	4
Equipment for General Use	6
General Electrical Theory & Principles	9
Motors & Controls	3
Plan Reading	4
Special Conditions	3
Special Equipment	3
Special Occupancies	2
Wiring & Protection	14
Wiring Methods & Materials	22

References

- <u>American Electricians' Handbook</u>, 15th Edition. ISBN: 978-0-07-149462-5. McGraw Hill Glencoe Order Services, P.O. Box 545, Blacklick, OH 43004. Available at www.amazon.com
- <u>NFPA 70 National Electric Code 2017</u>, 2017. ISBN: 978-145591277-3. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471. Available at www.nfpa.org.

Journeyman Electrician (Spanish)

A Journeyman Electrician is qualified and tested to perform work in the electrical trades while employed by a Master Electrician.

Number of Questions	70
Time allowed (hours)	3
Subject Area	# Quest.
Communication Systems	4
Equipment for General Use	6
General Electrical Theory & Principles	9
Motors & Controls	3
Plan Reading	4
Special Conditions	3
Special Equipment	3
Special Occupancies	2
Wiring & Protection	14
Wiring Methods & Materials	22

References

- <u>American Electrician's Handbook</u>, 17th Edition. ISBN: 978-1260457919. McGraw Hill Publishing Inc., P.O. Box 182604, Columbus, OH 43272.
- NFPA 70 National Electric Code 2020, 2020. ISBN: 9781455922970. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471. Available at www.nfpa.org.

Journeyman Pipefitter

Tests a candidate's knowledge of the layout, installation, maintenance, repair, and alteration of piping systems and related appurtenances that provide control of environmental conditions for air conditioning and manufacturing processes, including compressed air, fuel gas, manufacturing gases, steam, vacuum piping, process piping, and specialty piping.

Number of Questions	75
Time allowed (hours)	3
Subject Area	# Quest.
General Knowledge	20
Piping	33
Installation, Valves & Connections	19
Safety	3

References

- <u>Study Guide for Pipefitters</u>. ISBN: 978-1-269-26208-8. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at http://nccer.pearsonconstructionbooks.com
- <u>The Pipe Fitters Blue Book</u>, 2002. ISBN: 0-9708321-2-5. Graves Publishing Company, P.O. Box 953, Clinton, NC 28329. https://pipefitter.com/store/pipe-fitters-blue-book.html#productdetails-tab-specification

Journeyman Plumber

Tests a candidate's knowledge of the installation, repair, maintenance, and extension of any plumbing system, including drains, waste, sanitary vents, water supply, fixtures, and indirect wastes; installation, repair, and maintenance of gas piping systems, including gas piping, appliances, vents, flues, tanks, and other related appurtenances.

Number of Questions	100
Time allowed (hours)	3
Subject Area	# Quest.
Drain, Waste & Vent Systems	14
Fuel Gas Systems	14
Fixtures & Fittings	7
General Knowledge	10
Isometrics & Plan Reading	10
Plumbing Math	11
Safety	7
Storm & Roof Drainage	8
Water Heaters	7
Water Supply and Distribution	12

References

- <u>International Fuel Gas Code 2018</u>, 2018. ISBN: 978-1-60983-741-9. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. available @iccsafe.org
- <u>International Plumbing Code 2018</u>, 2018. ISBN: 978-1-60983-745-7. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. available @iccsafe.org
- Plumbing Basics for Contractors, 3rd Edition, 2014. ISBN: 978-1-269-78624-9. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com

Master Electrician

Those who have the knowledge and skill, to install, repair, alter, add to or change any electrical wires, fixtures, appliances, apparatus, raceways, conduit or any part thereof, which generates, transmits, transforms or utilizes electrical energy in any form for light, heat, power or communications (inclusive of burglary and fire alarm systems), all in compliance with applicable plans, specifications, codes, laws and regulations.

Number of Questions	100
Time allowed (hours)	4
Subject Area	# Quest.
Equipment for General Use	10
General Electrical Knowledge	15
Motors & Controls	5
Plan Reading	5
Special Conditions	5
Special Equipment	5
Special Occupancies	7
Wiring & Protection	18
Wiring Methods & Materials	25
Low Voltage Communication Systems	5

References

- <u>American Electricians' Handbook</u>, 15th Edition. ISBN: 978-0-07-149462-5. McGraw Hill Glencoe Order Services, P.O. Box 545, Blacklick, OH 43004. Available at www.amazon.com
- <u>NFPA 70 National Electric Code 2017</u>, 2017. ISBN: 978-145591277-3. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471. Available at www.nfpa.org.
- NFPA 72 2010 National Fire Alarm and Signaling Code Handbook. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471. Available at www.nfpa.org.
- <u>OSHA 29 CFR 1926</u>. Mancomm, 315 West 4th Street, Davenport, IA 52801-1204. Available at http://bookstore.gpo.gov.
- <u>**Trade Knowledge.**</u> Prov, 13614 Progress Blvd., Alachua, FL 32615. This reference is not a book for purchase. This reference represents the general knowledge that a candidate gains through experience in their trade.

Master Electrician (Spanish)

Those who have the knowledge and skill, to install, repair, alter, add to or change any electrical wires, fixtures, appliances, apparatus, raceways, conduit or any part thereof; which generates, transmits, transforms or utilizes electrical energy in any form for light, heat, power or communications (inclusive of burglary and fire alarm systems), all in compliance with applicable plans, specifications, codes, laws and regulations.

Number of Questions	100
Time allowed (hours)	4
Subject Area	# Quest.
Equipment for General Use	10
General Electrical Knowledge	15
Motors & Controls	5
Plan Reading	5
Special Conditions	5
Special Equipment	5
Special Occupancies	7
Wiring & Protection	18
Wiring Methods & Materials	25
Low Voltage Communication Systems	5

References

- <u>American Electricians' Handbook</u>, 15th Edition. ISBN: 978-0-07-149462-5. McGraw Hill Glencoe Order Services, P.O. Box 545, Blacklick, OH 43004. Available at www.amazon.com
- <u>Code of Federal Regulations, Title 29 Labor Pt 1926</u>, 2010. United States Department of Labor, DC. Available at www.dol.gov/dol/cfr/Title_29/Chapter_V.htm.
- <u>NFPA 70 National Electric Code 2017</u>, 2017. ISBN: 978-145591277-3. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471. Available at www.nfpa.org.
- NFPA 72 2010 National Fire Alarm and Signaling Code Handbook. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471. Available at www.nfpa.org.

Master Gasfitter

Tests a candidate's knowledge of the design, installation, maintenance, repair, alteration, and extension of gas piping, gas mains, lines, laterals, tanks, appliances, and related appurtenances.

Number of Questions	50
Time allowed (hours)	3
Subject Area	# Quest.
General Knowledge	8
Isometrics & Plan Reading	5
Sizing and Design	5
Pipefitting Math	5
System installation	12
LP gas	5
Venting	5
Safety	5

References

- <u>Basic Safety</u>. ISBN: 9781323676189. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at www.provbookstore.com.
- <u>Drawings and Detail Sheets</u>, 2006. ISBN: 0-13-613596-X. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at http://nccer.pearsonconstructionbooks.com.
- Identifying and Installing Valves, 2006. ISBN: 0-13-613598-6. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at http://nccer.pearsonconstructionbooks.com.
- <u>International Fuel Gas Code 2018</u>, 2018. ISBN: 978-1-60983-741-9. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. available @iccsafe.org
- <u>NFPA 58: Liquefied Petroleum Gas Code</u>, 2014. ISBN: 978-145590711-3. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471. available at www.nfpa.org
- <u>Pipefitting Power Tools</u>, 2006. ISBN: 0-13-229023-5. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at http://nccer.pearsonconstructionbooks.com.
- <u>Pipefitting Trade Math</u>, 2006. ISBN: 0-13-613599-4. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at http://nccer.pearsonconstructionbooks.com.
- <u>Socket Weld Pipe Fabrication</u>, 2006. ISBN: 978-0-13-613601-9. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at http://nccer.pearsonconstructionbooks.com.
- <u>Threaded Pipe Fabrication</u>, 2006. ISBN: 0-13-613600-1. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at http://nccer.pearsonconstructionbooks.com.

Master Pipefitter

Tests a candidate's knowledge of the design, layout, installation, maintenance, repair, and alteration of piping systems and related appurtenances that provide control of environmental conditions for air conditioning and manufacturing processes, including compressed air, fuel gas, manufacturing gases, steam, vacuum piping, process piping, and specialty piping.

Number of Questions	75
Time allowed (hours)	3
Subject Area	# Quest.
General Knowledge	14
Piping	35
Installation, Valves & Connections	16
Safety	10

References

- <u>Basic Safety</u>. ISBN: 9781323676189. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at www.provbookstore.com.
- <u>Study Guide for Pipefitters</u>. ISBN: 978-1-269-26208-8. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at http://nccer.pearsonconstructionbooks.com
- The Pipe Fitters Blue Book, 2002. ISBN: 0-9708321-2-5. Graves Publishing Company, P.O. Box 953, Clinton, NC 28329. https://pipefitter.com/store/pipe-fitters-bluebook.html#product-details-tab-specification

Master Plumber

Those who have the knowledge and skill to install, maintain, repair, alter or extend plumbing, sanitary drainage or storm drainage facilities, venting systems, public and private water supply systems, septic tanks, drainage and supply wells, swimming pool piping; irrigation systems; or solar heating water systems and all appurtenances, apparatus, or equipment used in connection therewith, including boilers and pressure process piping and including the installation of water and storm and sewer lines, water and sewer plants and substations.

Number of Questions	100
Time allowed (hours)	4
Subject Area	# Quest.
Drain, Waste & Vent Systems	15
Fuel Gas Systems	15
Fixtures & Fittings	8
General Knowledge	10

Isometrics & Plan Reading	8
Plumbing Math	6
Safety	6
Storm & Roof Drainage	8
Water Heaters	12
Water Supply and Distribution	12

References

- International Fuel Gas Code 2018, 2018. ISBN: 978-1-60983-741-9. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. available @iccsafe.org
- <u>International Plumbing Code 2018</u>, 2018. ISBN: 978-1-60983-745-7. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. available @iccsafe.org
- <u>Plumbing Basics for Contractors, 3rd Edition</u>, 2014. ISBN: 978-1-269-78624-9. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com

Master Residential Electrician

Tests a candidate's knowledge of the design, plan, installation, repair, alteration, and maintenance of electric conductors, raceways, and equipment for light, heat, and power in one-, two-, and three-family dwellings inclusive of burglary and fire alarm systems.

Number of Questions	65
Time allowed (hours)	3
Subject Area	# Quest.
Equipment for General Use	8
General Electrical Knowledge	16
Low Voltage Communication Systems	5
Motors & Controls	4
Special Conditions	3
Special Equipment	4
Special Occupancies	2
Wiring & Protection	13
Wiring Methods & Materials	10

References

 <u>American Electrician's Handbook</u>, 17th Edition. ISBN: 978-1260457919. McGraw Hill Publishing Inc., P.O. Box 182604, Columbus, OH 43272.

- <u>NFPA 70 National Electric Code 2020</u>, 2020. ISBN: 9781455922970. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471. Available at www.nfpa.org.
- NFPA 72 National Fire Alarm and Signaling Code <u>Handbook</u>, 2013. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.
- OSHA 29 CFR 1926. Mancomm, 315 West 4th Street, Davenport, IA 52801-1204. Available at http://bookstore.gpo.gov.

Master Residential Plumber

Tests a candidate's knowledge of the design, installation, repair, maintenance, and extension of a plumbing system, including drains, waste, sanitary vents, water supply, and fixtures; design, installation, maintenance, and repair of a gas system, including piping, appliances, vents, flues, tanks, and related appurtenances as it applies to one- and two-family residences, also multiple singlefamily dwellings (townhouses) not more than three stories in height.

Number of Questions	100
Time allowed (hours)	3
Subject Area	# Quest.
Drain, Waste & Vent Systems	10
Fuel Gas Systems	12
Fixtures & Fittings	9
General Knowledge	10
Isometrics & Plan Reading	21
Plumbing Math	7
Safety	4
Storm & Roof Drainage	3
Water Heaters	6
Water Supply and Distribution	18

References

- International Fuel Gas Code 2018, 2018. ISBN: 978-1-60983-741-9. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. available @iccsafe.org
- <u>International Residential Code</u>, 2018. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. Available @iccsafe.org
- Plumbing Basics for Contractors, 3rd Edition, 2014. ISBN: 978-1-269-78624-9. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com

TEST SITE INSTRUCTIONS



CANDIDATE INSTRUCTION HANDOUT

Please take a moment to read the following information (front and back). If you have any questions, then please let your proctor know. Failure to follow these testing rules can have serious consequences. Be advised, the testing center and testing room may be under video surveillance.

Testing Rules

• Be courteous and do not disturb others.

- After you are seated, follow all the instructions given and verify the information presented to you. This information will include your name, candidate ID, exam name, and occasionally additional testing materials such as graphics.
- If you leave the testing room during the test, you must notify your proctor and turn in all your testing materials.
- If you take a restroom break the test time will continue to countdown and the lost time cannot be recovered.
- If your computer freezes, shuts down, or will not move to the next question notify your proctor immediately and they will be able to restart your exam without loss of available testing time.
- At the end of your test, remain seated, raise your hand and wait for the proctor to start the check-out process with you. Once all testing materials have been accounted for by your proctor, you may collect your belongings and leave the testing center.
- If permitted by your jurisdiction, you will receive your testing results today; otherwise, you'll be notified of your testing results by either Prov or your jurisdiction.

NO TALKING

- NO EATING
- NO DRINKING
- NO TOBACCO USE
- NO CELL PHONES
- NO ELECTRONIC DEVICES
- NO VISITORS
- NO CHEATING
- NO TAKING NOTES
- NO MARKING IN BOOKS

Reference Rules for Open Book Exams

- Book title must be exact. *Exceptions:* Older/new editions are always permitted. Substitutes are allowed if listed in the Exam Details.
- Photocopied versions of a reference book are ONLY permitted when stated in the Exam Details.
- Permanent tabs such as gummed tabs, self-adhesive tabs with printable inserts, or insertable tab dividers (for three ring binders only) are permitted.
- Moveable items such as repositionable tabs or postit notes are NOT permitted in a reference book.
- Books can have highlighting and underlining; however, you cannot mark in your books during the test.
- Handwritten notes are NOT allowed in any portion of a reference book.
- Other documents (such as formula sheets or the Tom Henry and Kelly Indexes) or stickers (such as Ohm's Law) CANNOT be added, glued or taped to a reference book.

Unethical behavior

Individuals caught giving or receiving assistance during or after the examination, or caught using unauthorized materials during the examination will be reported to the Board. Those caught in the act of cheating will be dismissed from the examination and their testing results will be frozen. Furthermore, the candidate will forfeit the examination fees paid. Finally, anyone caught with test questions in their possession, either during or following the examination will be prosecuted by Prov for theft of copyrighted testing materials.

In the next few days, Prov will email you a link to our candidate experience survey, please let us know how we did!

	COMPUTER TES	TING NAVIGATION	
	Prov Sample Exam 2013 861935122		Blake Blakeney 895362
	Question 8 F Ū Time Remainin		Question Unanswered
d [®]	Which of the following balls is to be played using the feet?		F ^{UnFlag}
	1. A		Comment
	2. в		Summary
	3. с	В	Calculator
	4. D		Unit converter
Total number of questions Available time	Indicated in the upper left-hand corner Posted in hours and minutes. The test velocity		me Remaining reaches 0:00.
Selecting your answer	Use your mouse to select a number (1, selected. You may change your selected know the answer to a question, it is to wrong answer.	d answer for any question unti	I the test is over. If you do not
Tracking difficult questions	Press the Flagged? button to help you Flagging questions has no impact in sco see which questions have been flagged	oring. Press the button again to	
Question comments	During the assessment, you may find th question. The proctor cannot answer of send a comment to Prov's Test Develop leave a specific description. Staff will p refer to your candidate information bu	questions about test content at oment Department by clicking process your comments/question	t any time; however, you can the Comment button. Please ons within two weeks. You can
Moving to a different question	Use your mouse to select the Next or B move backward. You may also use you test.		
Reviewing your progress	Press the Summary button to see a tab have flagged.	le indicating which questions a	re unanswered or which you
Ending the test early	Press End Test button when you are rea exam and verify there are no unanswer	-	
Total number of questions	Indicated in the upper left-hand corner	of the screen.	

COMPUTER TESTING NAVIGATION