STATE OF OKLAHOMA

ELECTRICAL, MECHANICAL, ROOFING, AND PLUMBING EXAMINATIONS

CANDIDATE INFORMATION BULLETIN

Please refer to our website to check for the most updated information at https://test-takers.psiexams.com/okcontractors

Effective 1/29/2025

EXAMINATIONS BY PSI

This Candidate Information Bulletin provides you with information about the examination and application process for Contractors Licensure in the State of Oklahoma.

Eligibility for examination is determined by the State of Oklahoma Construction Industries Board.

2401 NW 23rd Street, Suite 2F
Oklahoma City, OK 73107
www.ok.gov

The Board has contracted with PSI to conduct its examination program. PSI provides examinations through a network of computer examination centers in Oklahoma and in many areas throughout the United States. PSI works closely with the State to be certain that examinations meet local as well as national requirements in basic principles and examination development standards.

EXAMINATION SCHEDULING PROCEDURES

Once you have been approved by the State, you are responsible for contacting PSI to schedule an appointment to take the examination. You may either schedule via the Internet at https://test-takers.psiexams.com/okcontractors, or schedule over the telephone at (855) 834-8750.

Each Examination Portion $92

NOTE: REGISTRATION FEES ARE NOT REFUNDABLE OR TRANSFERABLE

The fee is for each registration, whether you are taking the examination for the first time or repeating.

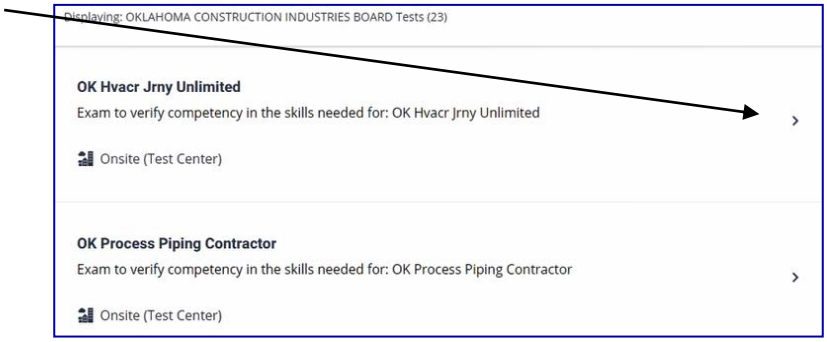
- There is no expiration on your eligibility.
- If you fail the first time, you must wait 30 days before retesting.
- For electrical exams, the waiting period for additional retest will be 30 days.
- For all other exams, for every failure after (and including) the second fail, you must wait 90 days before retesting.

ONLINE (https://test-takers.psiexams.com/okcontractors**)**

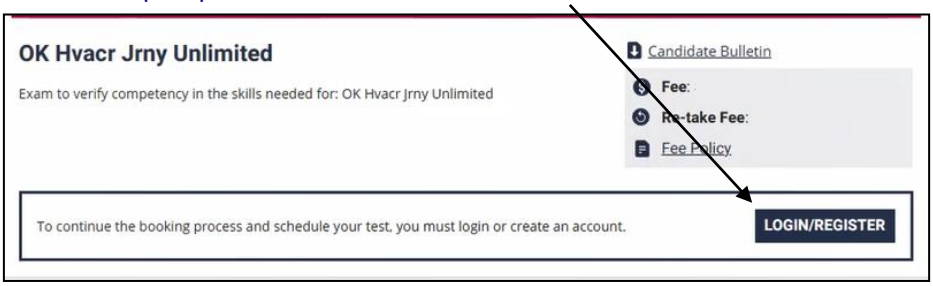
For **the fastest and most convenient** examination scheduling process, register for your examinations online by accessing PSI's registration Website: Click Here or on the email confirmation you received from PSI.

1. Select **"Tests"** to create an account.

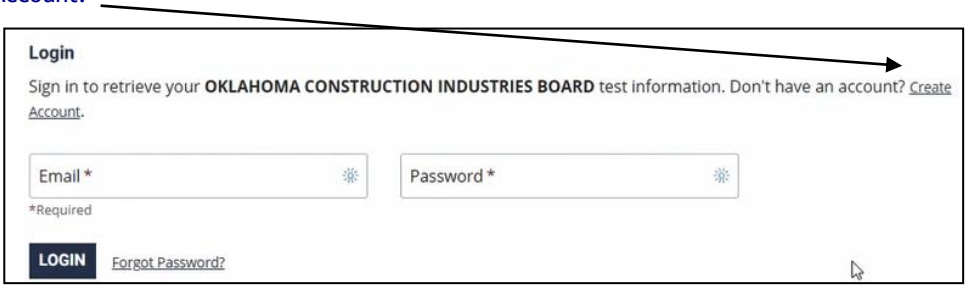
2. Select the examination you will be taking.



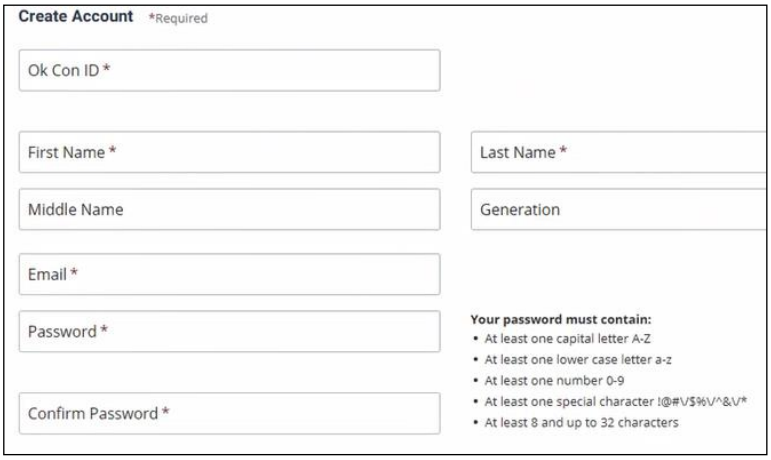
3. You will be prompted to create an account with PSI.



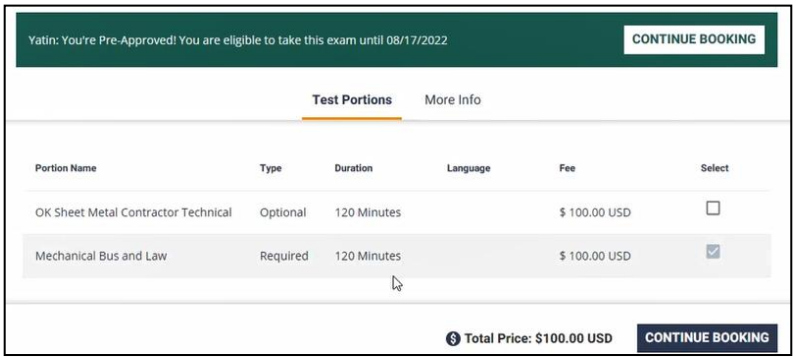
4. Select Create Account.



5. Fill out your personal information. The Ok Con ID # is provided by the Board.

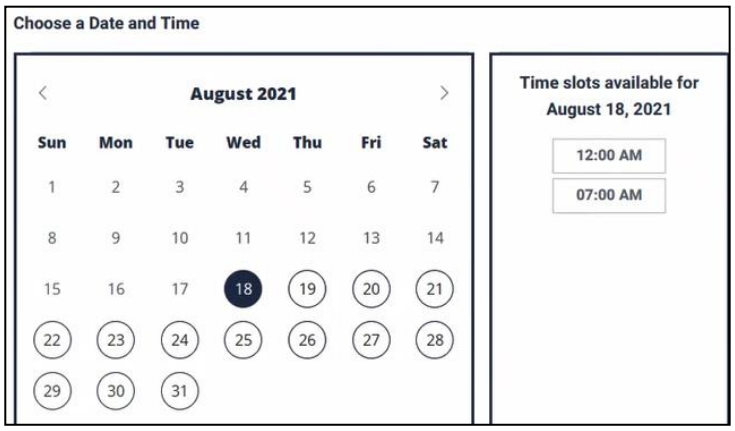


6. The examination you are approved for will be selected.

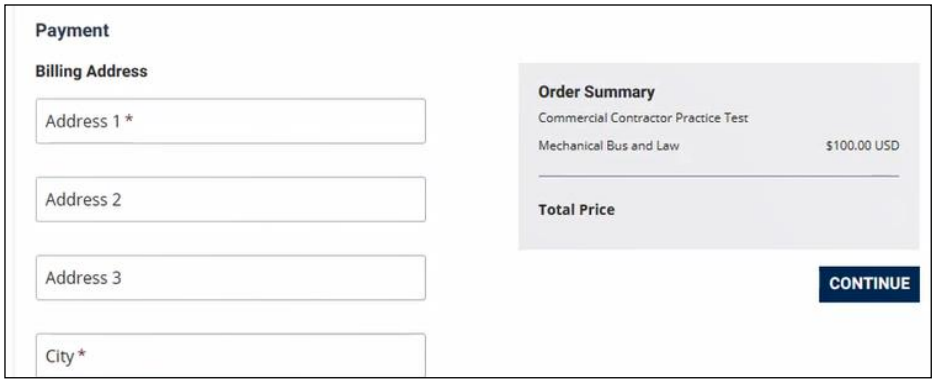


7. Enter your zip code and the closest test centers will appear.

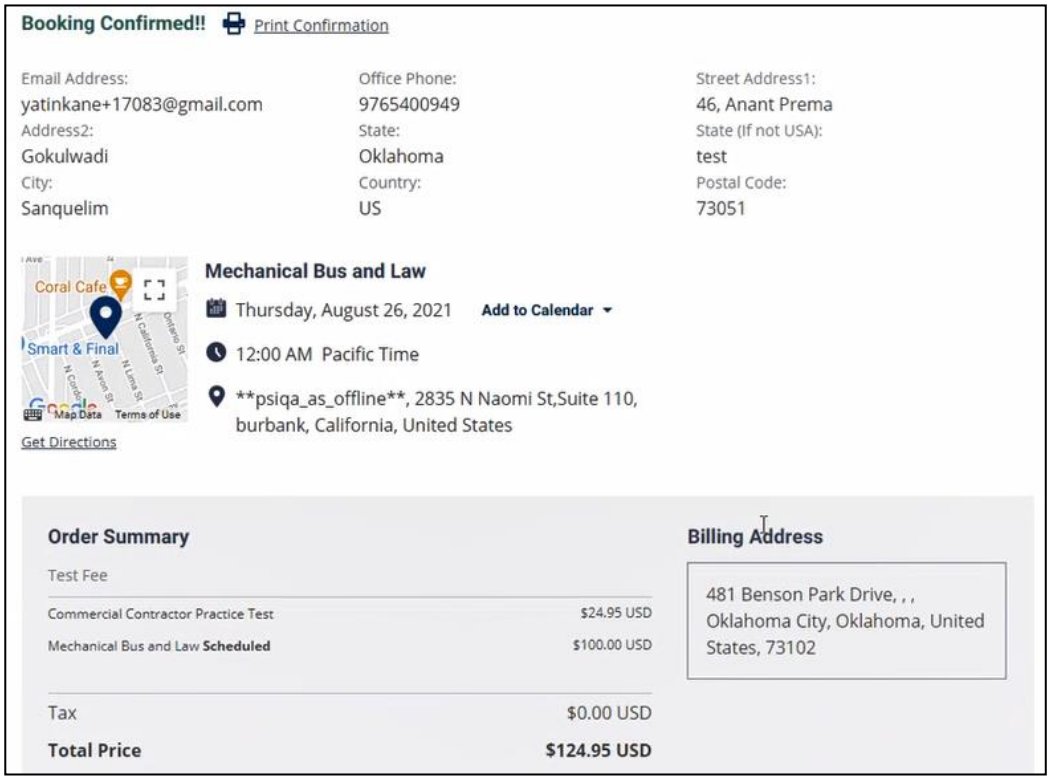
8. Select the test center, month, and date you would like to take the examination.



9. You are now ready to pay.



10. Once payment has been made you will receive the email confirmation.



TELEPHONE REGISTRATION

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

PSI registrars are available at (855) 834-8750, Monday through Friday between 6:30 am and 9:00 pm, and Saturday-Sunday between 8:00 am and 4:30 pm, Central Time, to receive your payment and schedule your appointment for the examination.

MISSED APPOINTMENT OR LATE CANCELLATION

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

- Do not cancel your appointment in the appropriate timeframe, please see the application form for details.
- Do not appear for your examination appointment.
- Arrive after examination start time.
- Do not present proper identification when you arrive for the examination.

EXAM ACCOMMODATIONS

All PSI examination centers are equipped to provide access in accordance with the Americans with Disabilities Act (ADA) of 1990, and exam accommodations will be made in meeting a candidate's needs. A candidate with a disability or a candidate who would otherwise have difficulty taking the examination should request for alternative arrangements by **Clicking Here**.

Candidates granted accommodation in accordance with the ADA, MUST schedule their examination by telephone and speak directly with a PSI registrar.

EXAMINATION SITE CLOSING FOR AN EMERGENCY

In the event that severe weather or another emergency forces the closure of an examination site on a scheduled examination date, your examination will be rescheduled. PSI personnel will attempt to contact you in this situation. However, you may check the status of your examination schedule by calling (855) 834-8750. Every effort will be made to reschedule your examination at a convenient time as soon as possible. You may also check PSI's website at https://test-takers.psiexams.com/okcontractors.

EXAMINATION SITE LOCATION

The Oklahoma Contractor licensing examinations are administered at the PSI examination centers in Oklahoma as listed below:

ENID 1201 West Willow Road Enid, OK 73703	**LAWTON** 4500 West Lee Boulevard Lawton, OK 73505	**McALESTER** 21 East Carl Albert Parkway McAlester, OK 74501
NORMAN 4701 12th Avenue NW Norman, OK 73070	**OKLAHOMA CITY (1)** 3800 North Classen Boulevard Oklahoma City, OK 73118	**OKLAHOMA CITY (2)** 2400 South Vermont Avenue Oklahoma City, OK 73108
PONCA CITY 2101 North Ash Ponca City, OK 74601	**TULSA (1)** 9810 East 42nd Street Tulsa, OK 74146	**TULSA (2)** 2840 East 51st Street Tulsa, OK 74105
TULSA (3) 200 Lear Jet Lane Tulsa, OK 74132	**WEATHERFORD** 1001 North 7th Street Weatherford, OK 73096	**WOODWARD** 1915 Oklahoma Avenue Woodward, OK 73801

Additionally, PSI has examination centers in many other regions across the United States. You may take this examination at any of these locations. Once you have paid for the examination, enter your zip code and a list of the testing sites closest to you will appear.

REPORTING TO THE EXAMINATION SITE

On the day of the examination, you should arrive at least 30 minutes before your appointment. This extra time is for sign-in, identification, and familiarizing you with the examination process. ***If you arrive late, you may not be admitted to the examination site and you will forfeit your examination registration fee.***

REQUIRED IDENTIFICATION AT EXAMINATION SITE

Candidates must register for the exam with their LEGAL first and last name as it appears on their government issued identification. The required identification below must match the first and last name under which the candidate is registered. Candidates are required to bring one (1) form of a valid (non-expired) signature bearing identification to the test site.

PRIMARY IDENTIFICATION – Choose One
NOTE: ID must contain candidate's signature, photo, be valid and unexpired.

- State issued driver's license
- State issued identification card
- US Government Issued Passport
- US Government Issued Military Identification Card
- US Government Issued Alien Registration Card
- Canadian Government Issued ID

SECURITY PROCEDURES

The following security procedures will apply during the examination:

- Only non-programmable calculators that are silent, battery-operated, do not have paper tape printing capabilities, and do not have a keyboard containing the alphabet will be allowed in the examination site.
- Candidates may take only approved items into the examination room.
- All personal belongings of candidates should be placed in the secure storage provided at each site prior to entering the examination room. Personal belongings **include**, **but are not limited to**, the following items:
  - **Electronic devices of any type, including cellular / mobile phones, recording devices, electronic watches, cameras, pagers, laptop computers, tablet computers (e.g., iPads), music players (e.g., iPods), smart watches, radios, or electronic games.**
  - **Bulky or loose clothing or coats** that could be used to conceal recording devices or notes. For security purposes outerwear such as, but not limited to: open sweaters, cardigans, shawls, scarves, vests, jackets, and coats are not permitted in the testing room. **In the event you are asked to remove the outerwear, appropriate attire, such as a shirt or blouse should be worn underneath.**
  - **Hats or headgear not worn for religious reasons** or as religious apparel, including hats, baseball caps, or visors.
  - **Other personal items**, including purses, notebooks, reference or reading material, briefcases, backpacks, wallets, pens, pencils, other writing devices, food, drinks, and good luck items.
- Person(s) accompanying an examination candidate may not wait in the examination center, inside the building or on the building's property. This applies to guests of any nature, including drivers, children, friends, family, colleagues, or instructors.
- No smoking, eating, or drinking is allowed in the examination center.
- During the check in process, all candidates will be asked if they possess any prohibited items. Candidates may also be asked to empty their pockets and turn them out for the proctor to ensure they are empty. The proctor may also ask candidates to lift up the ends of their sleeves and the bottoms of their pant legs to ensure that notes or recording devices are not being hidden there.
- Proctors will also carefully inspect eyeglass frames, tie tacks, or any other apparel that could be used to harbor a recording device. Proctors will ask to inspect any such items in candidates' pockets.
- If prohibited items are found during check-in, candidates shall put them in the provided secure storage or return these items to their vehicle. PSI will not be responsible for the security of any personal belongings or prohibited items.
- Any candidate possessing prohibited items in the examination room shall immediately have his or her test results invalidated, and PSI shall notify the examination sponsor of the occurrence.
- Any candidate seen giving or receiving assistance on an examination, found with unauthorized materials, or who violates any security regulations will be asked to surrender all examination materials and to leave the examination center. All such instances will be reported to the examination sponsor.
- Copying or communicating examination content is violation of a candidate's contract with PSI, and federal and state law. Either may result in the disqualification of examination results and may lead to legal action.
- Once candidates have been seated and the examination begins, they may leave the examination room only to use the restroom, and only after obtaining permission from the proctor. Candidate will not receive extra time to complete the examination.

TAKING THE EXAMINATION BY COMPUTER

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

IDENTIFICATION SCREEN

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

TUTORIAL

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

TEST QUESTION SCREEN

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

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

EXPERIMENTAL QUESTIONS

In addition to the number of questions for the exams, up to ten "experimental" questions may be administered to candidates during the examinations. These questions will not be scored, and the time taken to answer them will not count against examination time. The administration of such non-scored experimental questions is an essential step in developing future licensing examinations.

EXAMINATION REVIEW

PSI, in cooperation with the Oklahoma Board, will be consistently evaluating the examinations being administered to ensure that the examinations accurately measure competency in the required knowledge areas. Comments may be entered by clicking on the Comments link on the function bar of the test question screen. Your comments regarding the questions and the examinations are welcomed.

Comments will be analyzed by PSI examination development staff. While PSI does not respond to individuals regarding these comments, all substantive comments are reviewed. If a discrepancy is found during the comment review, PSI and the Board may re-evaluate candidates' results and adjust them accordingly. **This is the only review of the examination available to candidates.**

SCORE REPORTING

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

- **On screen** – your score will appear immediately on the computer screen. This will happen automatically at the end of the time allowed for the examination.
  - If you **pass**, you will immediately receive a successful notification.
  - If you **do not pass**, you will receive a diagnostic report indicating your strengths and weaknesses by examination type with the score report.
- **On paper** – an unofficial score report will be printed at the examination site.

If you pass the license exam, the Oklahoma State Construction Industries Board will issue you a license.

DUPLICATE SCORE REPORTS

You may request a duplicate score report after your examination by emailing scorereport@psionline.com.

EXAMINATION REFERENCE MATERIAL AND CONTENT OUTLINE

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

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

ELECTRICAL BUSINESS AND LAW

50 Scored Items - 120 minutes - 70% Correct to Pass

	Topic Information	# of Items
1.	**Bidding and Estimating** **a.** General Estimating **b.** Bid	10
2.	**Project Management and Supervision** **a.** General Project Oversight **b.** Oversee Budget **c.** Oversee Quality Control **d.** Oversee Materials Control **e.** Manage Jobsite Safety **f.** Schedule **g.** Potentially Hazardous Materials **h.** Environmental Protection **i.** Submittals and Reports **j.** Ethics **k.** Liens	7
3.	**Contracts** **a.** Terminology **b.** Required Elements/Components **c.** Contract Types **d.** Change Orders **e.** Standardized Documents **f.** Interpretation **g.** Warranties **h.** Documents/Inclusions **i.** Other Obligations	5
4.	**Financial** **a.** Business Organization Characteristics, Advantages, and Disadvantages **b.** Business Start-up **c.** Accounting Method **d.** Cash Flow Terminology **e.** Accounts Receivable **f.** Accounts Payable **g.** Balance Sheet **h.** Income Statement **i.** Taxes on Company Income **j.** Obtaining Financing **k.** Checking Account **l.** Financial Ratios	8

5.	**Labor and Personnel** **a.** ADA **b.** Labor Standards **c.** Requirements for Non-citizens and/or Non-residents **d.** Workers' Compensation **e.** Federal or State OSHA **f.** New Hires **g.** Personnel Record Keeping **h.** Other Requirements	5
6.	**Risk Management** **a.** Insurance **b.** Bonds	4
7.	**Payroll and Payroll Taxes** **a.** Taxes **b.** Forms and Due Dates	5
8.	**Licensing Requirements** **a.** Required Insurance/Bonds **b.** Renewal	6

REFERENCE LIST

The reference materials listed below were used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. Except for Code books, later editions of references are allowed in the test area. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

Candidates may use a silent, non-printing, non-programmable calculator in the examination center. Candidates will also be provided with a magnifying glass upon request.

This examination is OPEN BOOK.

The following reference materials are allowed in the examination center:

- *State of Oklahoma, Construction Industries Board, Unofficial Administrative Rules & Courtesy Exam Study Aids Book*, current edition (available at the Construction Industries Board Office – no fee).
- *Oklahoma Electrical Industry Regulations*, Oklahoma Administrative Code, Title 158, Chapter 40, Oklahoma Construction Industries Board, 2401 N.W. 23rd Street, Suite 2F, Oklahoma City, OK 73107, www.ok.gov/cib
- *Oklahoma Fine Schedule of the Construction Industries Board*, Oklahoma Administrative Code, Title 158, Chapter 10, Oklahoma Construction Industries Board, 2401 N.W. 23rd Street, Suite 2F, Oklahoma City, OK 73107, www.ok.gov/cib
- *Oklahoma Electrical License Act*, Oklahoma Statutes, Title 59, Chapter 40A, Oklahoma Construction Industries Board, 2401 N.W. 23rd Street, Suite 2F, Oklahoma City, OK 73107, www.ok.gov/cib
- *Oklahoma Lien Law*, Oklahoma Statutes, Title 42, Chapter 3, Oklahoma Construction Industries Board, 2401 N.W. 23rd Street, Suite 2F, Oklahoma City, OK 73107, www.ok.gov/cib
- *NASCLA Contractors Guide to Business, Law and Project Management*, Basic 14th Edition, National Association of State Contractors Licensing Agencies (NASCLA), Telephone: (623) 587-9354, www.nascla.org
- Oklahoma Workers' Compensation Act, Oklahoma Statutes, Title 85A, Chapter 1, Oklahoma Construction Industries Board, 2401 N.W. 23rd Street, Suite 2F, Oklahoma City, OK 73107, www.ok.gov/cib
  OR
  Oklahoma Workers' Compensation Act Statutory Excerpts, Oklahoma Statutes, Title 85A, Chapter 1, Oklahoma Construction Industries Board, 2401 N.W. 23rd Street, Suite 2F, Oklahoma City, OK 73107, www.ok.gov/cib

Candidates are responsible for bringing their own references to the examination center. Reference materials may be highlighted, underlined, and/or indexed prior to the examination session. References may not be written in prior to or during the examination session. Any candidate caught writing in the references during the examination will have the references confiscated and will be reported to the department. Furthermore, candidates are not permitted to bring in any additional papers with their approved references. Any additional materials will be removed from the references and confiscated. References may be tabbed/indexed with permanent tabs only. Temporary tabs, such as Post-It notes, are not allowed and must be removed from the reference before the exam will begin. If you download a reference from the Internet, it must be spiral bound or hole-punched and placed in a binder or stapled in the left-hand corner.

LIMITED ELECTRICAL CONTRACTOR

SCOPE OF WORK

Tests a candidate's knowledge of the design, plan, layout, installation, repair and alteration of electrical conductors, fixtures, appliances, apparatus, raceways, conduit and related equipment and fixtures that use electrical energy for light, heat, power, data and communications.

Effective thru 3/26/2025

100 Scored Items - 240 minutes - 70% Correct to Pass

Topic Information		# of Items
1.	**General Knowledge** **a.** Permits and Inspections **b.** Preservation of Structural Integrity **c.** Needs Analysis and Estimate	4
2.	**General Electrical Knowledge** **a.** Voltage, Current, and Resistance in Series, Parallel, and Combination Circuits **b.** Power Used in a Circuit **c.** Power Lost (called Heat Lost) in Any Circuit **d.** Fundamental AC Theory **e.** Fundamental Three-phase AC Theory **f.** Cost of Power Used in a Circuit **g.** Troubleshooting and Test Systems **h.** National Electrical Codebook **i.** Definitions Used by the NEC **j.** Temporary Wiring **k.** Cranes and Hoists **l.** Elevators and Escalators	10

3.	**Electrical Installation Requirements** **a.** Approved Methods of Installation of Electrical Equipment **b.** Approved Methods of Installation of Electrical Equipment in Excess of 600 volts	10
4.	**Services, Feeders, and Branch Circuits** **a.** Services **b.** Voltage Drop for Branch Circuits or Feeders **c.** Services in Excess of 600 volts **d.** Feeders **e.** Outside Branch Circuits and Feeders **f.** Branch Circuits **g.** Space-heating, Snow-melting, and Pipe-heating Circuits **h.** Air-conditioning and Refrigeration Equipment	10
5.	**Overcurrent Protection** **a.** NEC Overcurrent Protection Requirements	6
6.	**Grounding and Bonding** **a.** General Requirements **b.** Required Sizes of Grounding Electrode Conductors **c.** Required Sizes of Equipment Grounding Conductors	10
7.	**Conductors and Cables** **a.** Underground Conductors and Cables **b.** Vertical Installations **c.** Selecting Conductors **d.** Armored Cable, Type AC **e.** Metal-clad Cable, Type MC **f.** Nonmetallic-sheathed Cable, Types NM, NMC, NMS **g.** Service Entrance Cables, Types SE and USE **h.** Underground Feeder and Branch Circuit Cable, Type UF **i.** Mineral Insulated, Type MI **j.** Flat Cable Assemblies, Type FC, and Flat Conductor Cable, Type FCC **k.** Medium Voltage Cable, Type MV	6
8.	**Raceways and Boxes** **a.** General Raceway Requirements **b.** General Box Requirements **c.** Pull Boxes **d.** Conduit Fittings **e.** Type RMC (Rigid Metal Conduit) **f.** Type EMT (Electric Metallic Conduit) **g.** Type IMC (Intermediate Metal Conduit) **h.** Type RNC (Rigid Nonmetallic Conduit) **i.** Type FMC (Flexible Metal Conduit) **j.** Type LFMC (Liquid-tight Flexible Metal Conduit) **k.** Type FMT (Flexible Metallic Tubing) **l.** Type HDPE (High-density Polyethylene Conduit) **m.** Type NUCC (Nonmetallic Underground Conduit with Conductors) **n.** Type LFNC (Liquid-tight Flexible Nonmetallic conduit) **o.** Area of Raceway and Number of Conduct (Conduit Fill) **p.** Outlet, Device, Pull, and Junction Boxes **q.** Box Volume and Fill **r.** Auxiliary Gutters, Busways, Concrete and Nonconcrete Raceways **s.** Metal and Nonmetallic Wireways **t.** Surface Metal and Nonmetallic Raceways **u.** Underfloor Raceways **v.** Cabletrays	7
9.	**Special Occupancies and Equipment (Including Swimming Pools)** **a.** Wiring in Class I, II, and III Hazardous Locations **b.** Wiring in Commercial Garages and Fuel Dispensing Facilities **c.** Wiring in Bulk Storage Plants, Paint, and Spray Areas **d.** Special Occupancies **e.** Wiring in Health Facilities and Places of Assembly **f.** Wiring of Mobile Home, Mobile Home Parks, RVs, and RV Parks **g.** Wiring of Floating Buildings **h.** Wiring to Swimming Pools, Fountains, and Hot Tubs	10
10.	**Low Voltage, Alarms, Signaling Systems, and Communications** **a.** Remote Control or Signaling Circuits **b.** Communication Circuits **c.** Equipment Operating at 50 volts or Less **d.** Fiber Optics **e.** Photovoltaics **f.** Remote Controls **g.** Fire Alarms **h.** Circuit Wiring for an Emergency System **i.** Communications Systems Wiring	7
11.	**Lighting and Signs** **a.** Fixture Installation **b.** Fixture Grounding **c.** Fixture Wiring **d.** Fluorescent Fixtures **e.** Fixture Construction Requirements **f.** Recessed Fixtures **g.** Lighting Systems that Operate at Less Than 30 volts **h.** Neon Lighting and Electric Signs	10
12.	**Safety** **a.** Job Site Sanitation **b.** Responsibility for Providing Personal Protective Equipment **c.** Excavation Safety **d.** Emergency Action Plans **e.** Safety Training Requirements **f.** Ventilation **g.** First Aid Kit Requirements **h.** Use of Personal Protective Equipment **i.** Signs, Signals, and Barricades **j.** Tools and Equipment **k.** Ladders **l.** Workplace Illumination **m.** Scaffolds **n.** Requirements for Work Around Toxic Materials **o.** Material Cleanup and Disposal **p.** Material Safety Data Sheets (MSDS) **q.** Handling and Storing Materials **r.** Fall Protection	4
13.	**Motors and Transformers** **a.** Motors Used in Dwellings **b.** Motor Branch Circuits in Industrial and	6

	Commercial Locations **c.** Feeder Transformers **d.** Use of Transformers

Effective 3/27/2025

100 Scored Items - 240 minutes - 70% Correct to Pass

	Topic Information	# of Items
1.	**General Knowledge** **d.** Permits and Inspections **e.** Preservation of Structural Integrity **f.** Needs Analysis and Estimate	4
2.	**General Electrical Knowledge** **m.** Voltage, Current, and Resistance in Series, Parallel, and Combination Circuits **n.** Power Used in a Circuit **o.** Power Lost (called Heat Lost) in Any Circuit **p.** Fundamental AC Theory **q.** Fundamental Three-phase AC Theory **r.** Cost of Power Used in a Circuit **s.** Troubleshooting and Test Systems **t.** National Electrical Codebook **u.** Definitions Used by the NEC **v.** Temporary Wiring **w.** Cranes and Hoists **x.** Elevators and Escalators	10
3.	**Electrical Installation Requirements** **c.** Approved Methods of Installation of Electrical Equipment **d.** Approved Methods of Installation of Electrical Equipment in Excess of 600 volts	10
4.	**Services, Feeders, and Branch Circuits** **i.** Services **j.** Voltage Drop for Branch Circuits or Feeders **k.** Services in Excess of 600 volts **l.** Feeders **m.** Outside Branch Circuits and Feeders **n.** Branch Circuits **o.** Space-heating, Snow-melting, and Pipe-heating Circuits **p.** Air-conditioning and Refrigeration Equipment	10
5.	**Overcurrent Protection** **b.** NEC Overcurrent Protection Requirements	9
6.	**Grounding and Bonding** **d.** General Requirements **e.** Required Sizes of Grounding Electrode Conductors **f.** Required Sizes of Equipment Grounding Conductors	10
7.	**Conductors and Cables** **l.** Underground Conductors and Cables **m.** Vertical Installations **n.** Selecting Conductors **o.** Armored Cable, Type AC **p.** Metal-clad Cable, Type MC **q.** Nonmetallic-sheathed Cable, Types NM, NMC, NMS **r.** Service Entrance Cables, Types SE and USE **s.** Underground Feeder and Branch Circuit Cable, Type UF **t.** Mineral Insulated, Type MI **u.** Flat Cable Assemblies, Type FC, and Flat Conductor Cable, Type FCC **v.** Medium Voltage Cable, Type MV	8
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9.	**Special Occupancies and Equipment (Including Swimming Pools)** **i.** Wiring in Class I, II, and III Hazardous Locations **j.** Wiring in Commercial Garages and Fuel Dispensing Facilities **k.** Wiring in Bulk Storage Plants, Paint, and Spray Areas **l.** Special Occupancies **m.** Wiring in Health Facilities and Places of Assembly **n.** Wiring of Mobile Home, Mobile Home Parks, RVs, and RV Parks **o.** Wiring of Floating Buildings **p.** Wiring to Swimming Pools, Fountains, and Hot Tubs	10
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11.	**Lighting and Signs** **i.** Fixture Installation **j.** Fixture Grounding	10

	k. Fixture Wiring l. Fluorescent Fixtures m. Fixture Construction Requirements n. Recessed Fixtures o. Lighting Systems that Operate at Less Than 30 volts p. Neon Lighting and Electric Signs	
12.	**Safety** s. Job Site Sanitation t. Responsibility for Providing Personal Protective Equipment u. Excavation Safety v. Emergency Action Plans w. Safety Training Requirements x. Ventilation y. First Aid Kit Requirements z. Use of Personal Protective Equipment aa. Signs, Signals, and Barricades bb. Tools and Equipment cc. Ladders dd. Workplace Illumination ee. Scaffolds ff. Requirements for Work Around Toxic Materials gg. Material Cleanup and Disposal hh. Material Safety Data Sheets (MSDS) ii. Handling and Storing Materials jj. Fall Protection	4
13.	**Motors and Transformers** e. Motors Used in Dwellings f. Motor Branch Circuits in Industrial and Commercial Locations g. Feeder Transformers h. Use of Transformers	6

REFERENCE LIST

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  Hard copy can be purchased from Mancomm.com. https://mancomm.com/29-cfr-1926-osha-construction-industry-regulations-standards/.
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UNLIMITED ELECTRICAL CONTRACTOR

SCOPE OF WORK

Tests a candidate's knowledge of the design, plan, layout, installation, repair and alteration of electrical conductors, fixtures, appliances, apparatus, raceways, conduit and related equipment and fixtures that use electrical energy for light, heat, power, data and communications.

Effective thru 3/26/2025

100 Scored Items - 240 minutes - 70% Correct to Pass

Topic Information		# of Items
1.	**General Knowledge** a. Permits and Inspections b. Preservation of Structural Integrity c. Needs Analysis and Estimate	4
2.	**General Electrical Knowledge** a. Voltage, Current, and Resistance in Series, Parallel, and Combination Circuits b. Power Used in a Circuit c. Power Lost (called Heat Lost) in Any Circuit d. Fundamental AC Theory e. Fundamental Three-phase AC Theory f. Cost of Power Used in a Circuit g. Troubleshooting and Test Systems h. National Electrical Codebook i. Definitions Used by the NEC j. Temporary Wiring k. Cranes and Hoists l. Elevators and Escalators	10

3.	**Electrical Installation Requirements** **a.** Approved Methods of Installation of Electrical Equipment **b.** Approved Methods of Installation of Electrical Equipment in Excess of 600 volts	10
4.	**Services, Feeders, and Branch Circuits** **a.** Services **b.** Voltage Drop for Branch Circuits or Feeders **c.** Services in Excess of 600 volts **d.** Feeders **e.** Outside Branch Circuits and Feeders **f.** Branch Circuits **g.** Space-heating, Snow-melting, and Pipe-heating Circuits **h.** Air-conditioning and Refrigeration Equipment	10
5.	**Overcurrent Protection** **a.** NEC Overcurrent Protection Requirements	6
6.	**Grounding and Bonding** **a.** General Requirements **b.** Required Sizes of Grounding Electrode Conductors **c.** Required Sizes of Equipment Grounding Conductors	10
7.	**Conductors and Cables** **a.** Underground Conductors and Cables **b.** Vertical Installations **c.** Selecting Conductors **d.** Armored Cable, Type AC **e.** Metal-clad Cable, Type MC **f.** Nonmetallic-sheathed Cable, Types NM, NMC, NMS **g.** Service Entrance Cables, Types SE and USE **h.** Underground Feeder and Branch Circuit Cable, Type UF **i.** Mineral Insulated, Type MI **j.** Flat Cable Assemblies, Type FC, and Flat Conductor Cable, Type FCC **k.** Medium Voltage Cable, Type MV	6

8.	**Raceways and Boxes** **a.** General Raceway Requirements **b.** General Box Requirements **c.** Pull Boxes **d.** Conduit Fittings **e.** Type RMC (Rigid Metal Conduit) **f.** Type EMT (Electric Metallic Conduit) **g.** Type IMC (Intermediate Metal Conduit) **h.** Type RNC (Rigid Nonmetallic Conduit) **i.** Type FMC (Flexible Metal Conduit) **j.** Type LFMC (Liquid-tight Flexible Metal Conduit) **k.** Type FMT (Flexible Metallic Tubing) **l.** Type HDPE (High-density Polyethylene Conduit) **m.** Type NUCC (Nonmetallic Underground Conduit with Conductors) **n.** Type LFNC (Liquid-tight Flexible Nonmetallic conduit) **o.** Area of Raceway and Number of Conduct (Conduit Fill) **p.** Outlet, Device, Pull, and Junction Boxes **q.** Box Volume and Fill **r.** Auxiliary Gutters, Busways, Concrete and Nonconcrete Raceways **s.** Metal and Nonmetallic Wireways **t.** Surface Metal and Nonmetallic Raceways **u.** Underfloor Raceways **v.** Cabletrays	7
9.	**Special Occupancies and Equipment (Including Swimming Pools)** **a.** Wiring in Class I, II, and III Hazardous Locations **b.** Wiring in Commercial Garages and Fuel Dispensing Facilities **c.** Wiring in Bulk Storage Plants, Paint, and Spray Areas **d.** Special Occupancies **e.** Wiring in Health Facilities and Places of Assembly **f.** Wiring of Mobile Home, Mobile Home Parks, RVs, and RV Parks **g.** Wiring of Floating Buildings **h.** Wiring to Swimming Pools, Fountains, and Hot Tubs	10
10.	**Low Voltage, Alarms, Signaling Systems, and Communications** **a.** Remote Control or Signaling Circuits **b.** Communication Circuits **c.** Equipment Operating at 50 volts or Less **d.** Fiber Optics **e.** Photovoltaics **f.** Remote Controls **g.** Fire Alarms **h.** Circuit Wiring for an Emergency System **i.** Communications Systems Wiring	7
11.	**Lighting and Signs** **a.** Fixture Installation **b.** Fixture Grounding **c.** Fixture Wiring **d.** Fluorescent Fixtures **e.** Fixture Construction Requirements **f.** Recessed Fixtures **g.** Lighting Systems that Operate at Less Than 30 volts **h.** Neon Lighting and Electric Signs	10

12.	**Safety** **a.** Job Site Sanitation **b.** Responsibility for Providing Personal Protective Equipment **c.** Excavation Safety **d.** Emergency Action Plans **e.** Safety Training Requirements **f.** Ventilation **g.** First Aid Kit Requirements **h.** Use of Personal Protective Equipment **i.** Signs, Signals, and Barricades **j.** Tools and Equipment **k.** Ladders **l.** Workplace Illumination **m.** Scaffolds **n.** Requirements for Work Around Toxic Materials **o.** Material Cleanup and Disposal **p.** Material Safety Data Sheets (MSDS) **q.** Handling and Storing Materials **r.** Fall Protection	4
13.	**Motors and Transformers** **a.** Motors Used in Dwellings **b.** Motor Branch Circuits in Industrial and Commercial Locations **c.** Feeder Transformers **d.** Use of Transformers	6

Effective 3/27/2025

100 Scored Items - 240 minutes - 70% Correct to Pass

Topic Information		# of Items
1.	**General Knowledge** **d.** Permits and Inspections **e.** Preservation of Structural Integrity **f.** Needs Analysis and Estimate	4
2.	**General Electrical Knowledge** **m.** Voltage, Current, and Resistance in Series, Parallel, and Combination Circuits **n.** Power Used in a Circuit **o.** Power Lost (called Heat Lost) in Any Circuit **p.** Fundamental AC Theory **q.** Fundamental Three-phase AC Theory **r.** Cost of Power Used in a Circuit **s.** Troubleshooting and Test Systems **t.** National Electrical Codebook **u.** Definitions Used by the NEC **v.** Temporary Wiring **w.** Cranes and Hoists **x.** Elevators and Escalators	10
3.	**Electrical Installation Requirements** **c.** Approved Methods of Installation of Electrical Equipment **d.** Approved Methods of Installation of Electrical Equipment in Excess of 600 volts	10
4.	**Services, Feeders, and Branch Circuits** **i.** Services **j.** Voltage Drop for Branch Circuits or Feeders **k.** Services in Excess of 600 volts **l.** Feeders **m.** Outside Branch Circuits and Feeders **n.** Branch Circuits	10
	o. Space-heating, Snow-melting, and Pipe-heating Circuits **p.** Air-conditioning and Refrigeration Equipment	
5.	**Overcurrent Protection** **b.** NEC Overcurrent Protection Requirements	9
6.	**Grounding and Bonding** **d.** General Requirements **e.** Required Sizes of Grounding Electrode Conductors **f.** Required Sizes of Equipment Grounding Conductors	10
7.	**Conductors and Cables** **l.** Underground Conductors and Cables **m.** Vertical Installations **n.** Selecting Conductors **o.** Armored Cable, Type AC **p.** Metal-clad Cable, Type MC **q.** Nonmetallic-sheathed Cable, Types NM, NMC, NMS **r.** Service Entrance Cables, Types SE and USE **s.** Underground Feeder and Branch Circuit Cable, Type UF **t.** Mineral Insulated, Type MI **u.** Flat Cable Assemblies, Type FC, and Flat Conductor Cable, Type FCC **v.** Medium Voltage Cable, Type MV	8
8.	**Raceways and Boxes** **w.** General Raceway Requirements **x.** General Box Requirements **y.** Pull Boxes **z.** Conduit Fittings **aa.** Type RMC (Rigid Metal Conduit) **bb.** Type EMT (Electric Metallic Conduit) **cc.** Type IMC (Intermediate Metal Conduit) **dd.** Type RNC (Rigid Nonmetallic Conduit) **ee.** Type FMC (Flexible Metal Conduit) **ff.** Type LFMC (Liquid-tight Flexible Metal Conduit) **gg.** Type FMT (Flexible Metallic Tubing) **hh.** Type HDPE (High-density Polyethylene Conduit) **ii.** Type NUCC (Nonmetallic Underground Conduit with Conductors) **jj.** Type LFNC (Liquid-tight Flexible Nonmetallic conduit) **kk.** Area of Raceway and Number of Conduct (Conduit Fill) **ll.** Outlet, Device, Pull, and Junction Boxes **mm.** Box Volume and Fill **nn.** Auxiliary Gutters, Busways, Concrete and Nonconcrete Raceways **oo.** Metal and Nonmetallic Wireways **pp.** Surface Metal and Nonmetallic Raceways **qq.** Underfloor Raceways **rr.** Cabletrays	7
9.	**Special Occupancies and Equipment (Including Swimming Pools)** **i.** Wiring in Class I, II, and III Hazardous Locations **j.** Wiring in Commercial Garages and Fuel Dispensing Facilities **k.** Wiring in Bulk Storage Plants, Paint, and Spray Areas **l.** Special Occupancies **m.** Wiring in Health Facilities and Places of Assembly	10

	n. Wiring of Mobile Home, Mobile Home Parks, RVs, and RV Parks o. Wiring of Floating Buildings p. Wiring to Swimming Pools, Fountains, and Hot Tubs	
10.	**Low Voltage, Alarms, Signaling Systems, and Communications** j. Remote Control or Signaling Circuits k. Communication Circuits l. Equipment Operating at 50 volts or Less m. Fiber Optics n. Photovoltaics o. Remote Controls p. Fire Alarms q. Circuit Wiring for an Emergency System r. Communications Systems Wiring	2
11.	**Lighting and Signs** i. Fixture Installation j. Fixture Grounding k. Fixture Wiring l. Fluorescent Fixtures m. Fixture Construction Requirements n. Recessed Fixtures o. Lighting Systems that Operate at Less Than 30 volts p. Neon Lighting and Electric Signs	10
12.	**Safety** s. Job Site Sanitation t. Responsibility for Providing Personal Protective Equipment u. Excavation Safety v. Emergency Action Plans w. Safety Training Requirements x. Ventilation y. First Aid Kit Requirements z. Use of Personal Protective Equipment aa. Signs, Signals, and Barricades bb. Tools and Equipment cc. Ladders dd. Workplace Illumination ee. Scaffolds ff. Requirements for Work Around Toxic Materials gg. Material Cleanup and Disposal hh. Material Safety Data Sheets (MSDS) ii. Handling and Storing Materials jj. Fall Protection	4
13.	**Motors and Transformers** e. Motors Used in Dwellings f. Motor Branch Circuits in Industrial and Commercial Locations g. Feeder Transformers h. Use of Transformers	6

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UNLIMITED ELECTRICAL JOURNEYMAN

SCOPE OF WORK

Tests a candidate's knowledge of the design, plan, layout, installation, repair and alteration of electrical conductors, fixtures, appliances, apparatus, raceways, conduit and related equipment and fixtures that use electrical energy for light, heat, power, data and communications in a supervised environment.

Effective thru 3/26/2025

100 Scored Items - 240 minutes - 70% Correct to Pass

Topic Information		# of Items
1.	**General Knowledge** **a.** Permits and Inspections **b.** Preservation of Structural Integrity **c.** Needs Analysis and Estimate	4
2.	**General Electrical Knowledge** **a.** Voltage, Current, and Resistance in Series, Parallel, and Combination Circuits **b.** Power Used in a Circuit **c.** Power lost (called Heat Lost) in Any Circuit **d.** Fundamental AC Theory **e.** Fundamental Three-phase AC Theory **f.** Cost of Power Used in a Circuit **g.** Troubleshooting and Test Systems **h.** National Electrical Codebook **i.** Definitions Used by the NEC **j.** Temporary Wiring **k.** Cranes and Hoists **l.** Elevators and Escalators	10
3.	**Electrical Installation Requirements** **a.** Approved Methods of Installation of Electrical Equipment **b.** Approved Methods of Installation of Electrical Equipment in Excess of 600 volts	10
4.	**Services, Feeders, and Branch Circuits** **a.** Services **b.** Voltage Drop for Branch Circuits or Feeders **c.** Services in Excess of 600 volts **d.** Feeders **e.** Outside Branch Circuits and Feeders **f.** Branch Circuits **g.** Space-heating, Snow-melting, and Pipe-heating Circuits **h.** Air-conditioning and Refrigeration Equipment	10
5.	**Overcurrent Protection** **a.** NEC Overcurrent Protection Requirements	6
6.	**Grounding and Bonding** **a.** General Requirements **b.** Required Sizes of Grounding Electrode Conductors **c.** Required Sizes of Equipment Grounding Conductors	10
7.	**Conductors and Cables** **a.** Underground Conductors and Cables **b.** Vertical Installations **c.** Selecting Conductors **d.** Armored Cable, Type AC **e.** Metal-clad Cable, Type MC **f.** Nonmetallic-sheathed Cable, Types NM, NMC, NMS **g.** Service Entrance Cables, Types SE and USE **h.** Underground Feeder and Branch Circuit Cable, Type UF **i.** Mineral Insulated, Type MI **j.** Flat Cable Assemblies, Type FC, and Flat Conductor Cable, Type FCC **k.** Medium Voltage Cable, Type MV	6
8.	**Raceways and Boxes** **a.** General Raceway Requirements **b.** General Box Requirements **c.** Pull Boxes **d.** Conduit Fittings	7
	e. Type RMC (Rigid Metal Conduit) **f.** Type EMT (Electric Metallic Conduit) **g.** Type IMC (Intermediate Metal Conduit) **h.** Type RNC (Rigid Nonmetallic Conduit) **i.** Type FMC (Flexible Metal Conduit) **j.** Type LFMC (Liquid-tight Flexible Metal Conduit) **k.** Type FMT (Flexible Metallic Tubing) **l.** Type HDPE (High-density Polyethylene Conduit) **m.** Type NUCC (Nonmetallic Underground Conduit with Conductors) **n.** Type LFNC (Liquid-tight Flexible Nonmetallic Conduit) **o.** Area of Raceway and Number of Conduct (Conduit Fill) **p.** Outlet, Device, Pull, and Junction Boxes **q.** Box Volume and Fill **r.** Auxiliary Gutters, Busways, Concrete and Nonconcrete Raceways **s.** Metal and Nonmetallic Wireways **t.** Surface Metal and Nonmetallic Raceways **u.** Underfloor Raceways **v.** Cabletrays	
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10.	**Low Voltage, Alarms, Signaling Systems, and Communications** **a.** Remote Control or Signaling Circuits **b.** Communication Circuits **c.** Equipment Operating at 50 volts or Less **d.** Fiber Optics **e.** Photovoltaics **f.** Remote Controls **g.** Fire Alarms **h.** Circuit Wiring for an Emergency System **i.** Communications Systems Wiring	7
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12.	**Safety** **a.** Job Site Sanitation **b.** Responsibility for Providing Personal Protective Equipment	4

	c. Excavation Safety d. Emergency Action Plans e. Safety Training Requirements f. Ventilation g. First Aid Kit Requirements h. Use of Personal Protective Equipment i. Signs, Signals, and Barricades j. Tools and Equipment k. Ladders l. Workplace Illumination m. Scaffolds n. Requirements for Work Around Toxic Materials o. Material Cleanup and Disposal p. Material Safety Data Sheets (MSDS) q. Handling and Storing Materials r. Fall Protection	
13.	**Motors and Transformers** a. Motors Used in Dwellings b. Motor Branch Circuits in Industrial and Commercial Locations c. Feeder Transformers d. Use of Transformers	6

Effective 3/27/2025

100 Scored Items - 240 minutes - 70% Correct to Pass

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3.	**Electrical Installation Requirements** c. Approved Methods of Installation of Electrical Equipment d. Approved Methods of Installation of Electrical Equipment in Excess of 600 volts	10
4.	**Services, Feeders, and Branch Circuits** i. Services j. Voltage Drop for Branch Circuits or Feeders k. Services in Excess of 600 volts l. Feeders m. Outside Branch Circuits and Feeders n. Branch Circuits o. Space-heating, Snow-melting, and Pipe-heating Circuits p. Air-conditioning and Refrigeration Equipment	10
5.	**Overcurrent Protection** b. NEC Overcurrent Protection	9
	Requirements	
6.	**Grounding and Bonding** d. General Requirements e. Required Sizes of Grounding Electrode Conductors f. Required Sizes of Equipment Grounding Conductors	10
7.	**Conductors and Cables** l. Underground Conductors and Cables m. Vertical Installations n. Selecting Conductors o. Armored Cable, Type AC p. Metal-clad Cable, Type MC q. Nonmetallic-sheathed Cable, Types NM, NMC, NMS r. Service Entrance Cables, Types SE and USE s. Underground Feeder and Branch Circuit Cable, Type UF t. Mineral Insulated, Type MI u. Flat Cable Assemblies, Type FC, and Flat Conductor Cable, Type FCC v. Medium Voltage Cable, Type MV	8
8.	**Raceways and Boxes** w. General Raceway Requirements x. General Box Requirements y. Pull Boxes z. Conduit Fittings aa. Type RMC (Rigid Metal Conduit) bb. Type EMT (Electric Metallic Conduit) cc. Type IMC (Intermediate Metal Conduit) dd. Type RNC (Rigid Nonmetallic Conduit) ee. Type FMC (Flexible Metal Conduit) ff. Type LFMC (Liquid-tight Flexible Metal Conduit) gg. Type FMT (Flexible Metallic Tubing) hh. Type HDPE (High-density Polyethylene Conduit) ii. Type NUCC (Nonmetallic Underground Conduit with Conductors) jj. Type LFNC (Liquid-tight Flexible Nonmetallic Conduit) kk. Area of Raceway and Number of Conduct (Conduit Fill) ll. Outlet, Device, Pull, and Junction Boxes mm. Box Volume and Fill nn. Auxiliary Gutters, Busways, Concrete and Nonconcrete Raceways oo. Metal and Nonmetallic Wireways pp. Surface Metal and Nonmetallic Raceways qq. Underfloor Raceways rr. Cabletrays	7
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	o. Wiring of Floating Buildings p. Wiring to Swimming Pools, Fountains, and Hot Tubs	
10.	**Low Voltage, Alarms, Signaling Systems, and Communications** j. Remote Control or Signaling Circuits k. Communication Circuits l. Equipment Operating at 50 volts or Less m. Fiber Optics n. Photovoltaics o. Remote Controls p. Fire Alarms q. Circuit Wiring for an Emergency System r. Communications Systems Wiring	2
11.	**Lighting and Signs** i. Fixture Installation j. Fixture Grounding k. Fixture Wiring l. Fluorescent Fixtures m. Fixture Construction Requirements n. Recessed Fixtures o. Lighting Systems that Operate at Less Than 30 volts p. Neon Lighting and Electric Signs	10
12.	**Safety** s. Job Site Sanitation t. Responsibility for Providing Personal Protective Equipment u. Excavation Safety v. Emergency Action Plans w. Safety Training Requirements x. Ventilation y. First Aid Kit Requirements z. Use of Personal Protective Equipment aa. Signs, Signals, and Barricades bb. Tools and Equipment cc. Ladders dd. Workplace Illumination ee. Scaffolds ff. Requirements for Work Around Toxic Materials gg. Material Cleanup and Disposal hh. Material Safety Data Sheets (MSDS) ii. Handling and Storing Materials jj. Fall Protection	4
13.	**Motors and Transformers** e. Motors Used in Dwellings f. Motor Branch Circuits in Industrial and Commercial Locations g. Feeder Transformers h. Use of Transformers	6

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RESIDENTIAL ELECTRICAL CONTRACTOR

SCOPE OF WORK

Tests a candidate's knowledge of the design, plan, layout, installation, repair and alteration of electrical conductors, fixtures, appliances, apparatus, raceways, conduit and related equipment and fixtures that use electrical energy for light, heat, power, data and communications as it applies to one-, two-, or three-family residences.

Effective thru 3/26/2025

80 Scored Items - 210 minutes - 70% Correct to Pass

Topic Information		# of Items
1.	**General Knowledge** **a.** Permits and Inspections **b.** Preservation of Structural Integrity **c.** Needs analysis and estimate	4
2.	**General Electrical Knowledge** **a.** Voltage, Durrent, and Resistance in Series, Parallel, and Combination Circuits **b.** Power Used in a Circuit **c.** Power Lost (called Heat Lost) in Any Circuit **d.** Fundamental AC Theory **e.** Fundamental Three-phase AC Theory **f.** Cost of Power Used in a Circuit **g.** System Troubleshooting and Testing **h.** Use of the National Electrical Codebook **i.** Understanding and Application of Definitions Used by the NEC **j.** Temporary Wiring **k.** Elevators and Escalators	12
3.	**Electrical Installation Requirements** **a.** Approved Methods of Installation of Electrical Equipment **b.** Approved Methods of Installation of Electrical Equipment in Excess of 600 volts	10
4.	**Services, Feeders, and Branch Circuits** **a.** Services **b.** Voltage Drop for Branch Circuits or Feeders **c.** Services in Excess of 600 volts **d.** Feeders **e.** Outside Branch Circuits and Feeders **f.** Branch Circuits **g.** Space-heating, Snow-melting, and Pipe-heating Circuits **h.** Air-conditioning and Refrigeration Equipment	10
5.	**Overcurrent Protection** **a.** NEC Overcurrent Protection Requirements	6
6.	**Grounding and Bonding** **a.** General Requirements **b.** Grounding Electrode Conductors **c.** Equipment Grounding Conductors	8
7.	**Conductors and Cables** **a.** Install Underground Conductors and Cables **b.** Perform Vertical Installations **c.** Select Conductor **d.** Armored Cable, Type AC **e.** Metal-clad Cable, Type MC **f.** Nonmetallic-sheathed Cable, Types NM, NMC, NMS **g.** Service Entrance Cables, Types SE and USE **h.** Underground Feeder and Branch Circuit Cable, Type UF **i.** Mineral Insulated, Type MI **j.** Flat Cable Assemblies, Type FC, and Flat Conductor Cable, Type FCC **k.** Medium Voltage Cable, Type MV	6
8.	**Raceways and Boxes** **a.** General Raceway Requirements **b.** General Box Requirements **c.** Pull Boxes and Conduit Fittings **d.** Type RMC (Rigid Metal Conduit) **e.** Type EMT (Electric Metallic Conduit) **f.** Type IMC (Intermediate Metal Conduit) **g.** Type RNC (Rigid Nonmetallic Conduit) **h.** Type FMC (Flexible Metal Conduit) **i.** Type LFMC (Liquid-tight Flexible Metal Conduit) **j.** Type FMT (Flexible Metallic Tubing) **k.** Type HDPE (High-density Polyethylene Conduit) **l.** Type NUCC (Nonmetallic Underground Conduit with Conductors) **m.** Type LFNC (Liquid-tight Flexible Nonmetallic Conduit) **n.** Area of Raceways and Number of Conduct (Conduit Fill) **o.** Outlet, Device, Pull, and Junction Boxes **p.** Box Volume and Fill **q.** Auxiliary Gutters, Busways, Concrete, and Nonconcrete Raceways **r.** Metal and Nonmetallic Wireways **s.** Surface Metal and Nonmetallic Raceways **t.** Underfloor Raceways **u.** Cabletrays	6
9.	**Special Occupancies and Equipment (Including Swimming Pools)** **a.** Wiring of Mobile Home, Mobile Home Parks, RVs, and RV Parks **b.** Required Wiring to Swimming Pools, Fountains, and Hot Tubs	4
10.	**Low Voltage, Alarms, Signaling Systems, and Communications** **a.** Remote Control or Signaling Circuits **b.** Communication Circuits **c.** Equipment Operating at 50 volts or Less **d.** Fiber Optic **e.** Photovoltaics **f.** Remote Control **g.** Fire Alarms **h.** Circuit Wiring for Emergency Systems **i.** Communications Systems Wiring	6
11.	**Lighting and Signs** **a.** Fixtures Installation **b.** Fixtures Grounding **c.** Fixture Wiring **d.** Fluorescent Fixtures **e.** Fixture Construction Requirements **f.** Recessed Fixtures **g.** Lighting Systems that Operate at Less Than 30 volts	4
12.	**Safety** **a.** Job Site Sanitation **b.** Responsibility for Providing Personal Protective Equipment **c.** Excavation Safety **d.** Emergency Action Plans **e.** Safety Training Requirements **f.** Ventilation **g.** First Aid Kit Requirements **h.** Use of Personal Protective Equipment **i.** Signs, Signals, and Barricades **j.** Tools and Equipment **k.** Ladders **l.** Workplace Illumination **m.** Scaffolds **n.** Requirements for Work Around Toxic	4

	Materials **o.** Material Cleanup and Disposal **p.** Material Safety Data Sheets (MSDS) **q.** Handling and Storing Materials **r.** Fall Protection

Effective 3/27/2025

80 Scored Items - 210 minutes - 70% Correct to Pass

Topic Information		**# of Items**
1.	**General Knowledge** **c.** Permits and Inspections **d.** Preservation of Structural Integrity **d.** Needs analysis and estimate	4
2.	**General Electrical Knowledge** **b.** Voltage, Durrent, and Resistance in Series, Parallel, and Combination Circuits **l.** Power Used in a Circuit **m.** Power Lost (called Heat Lost) in Any Circuit **n.** Fundamental AC Theory **o.** Fundamental Three-phase AC Theory **p.** Cost of Power Used in a Circuit **q.** System Troubleshooting and Testing **r.** Use of the National Electrical Codebook **s.** Understanding and Application of Definitions Used by the NEC **t.** Temporary Wiring **u.** Elevators and Escalators	12
3.	**Electrical Installation Requirements** **c.** Approved Methods of Installation of Electrical Equipment **d.** Approved Methods of Installation of Electrical Equipment in Excess of 600 volts	10
4.	**Services, Feeders, and Branch Circuits** **i.** Services **j.** Voltage Drop for Branch Circuits or Feeders **k.** Services in Excess of 600 volts **l.** Feeders **m.** Outside Branch Circuits and Feeders **n.** Branch Circuits **o.** Space-heating, Snow-melting, and Pipe-heating Circuits **p.** Air-conditioning and Refrigeration Equipment	10
5.	**Overcurrent Protection** **b.** NEC Overcurrent Protection Requirements	8
6.	**Grounding and Bonding** **d.** General Requirements **e.** Grounding Electrode Conductors **f.** Equipment Grounding Conductors	8
7.	**Conductors and Cables** **l.** Install Underground Conductors and Cables **m.** Perform Vertical Installations **n.** Select Conductor **o.** Armored Cable, Type AC **p.** Metal-clad Cable, Type MC **q.** Nonmetallic-sheathed Cable, Types NM, NMC, NMS **r.** Service Entrance Cables, Types SE and USE **s.** Underground Feeder and Branch Circuit Cable, Type UF **t.** Mineral Insulated, Type MI **u.** Flat Cable Assemblies, Type FC, and Flat Conductor Cable, Type FCC **v.** Medium Voltage Cable, Type MV	8
8.	**Raceways and Boxes** **v.** General Raceway Requirements **w.** General Box Requirements **x.** Pull Boxes and Conduit Fittings **y.** Type RMC (Rigid Metal Conduit) **z.** Type EMT (Electric Metallic Conduit) **aa.** Type IMC (Intermediate Metal Conduit) **bb.** Type RNC (Rigid Nonmetallic Conduit) **cc.** Type FMC (Flexible Metal Conduit) **dd.** Type LFMC (Liquid-tight Flexible Metal Conduit) **ee.** Type FMT (Flexible Metallic Tubing) **ff.** Type HDPE (High-density Polyethylene Conduit) **gg.** Type NUCC (Nonmetallic Underground Conduit with Conductors) **hh.** Type LFNC (Liquid-tight Flexible Nonmetallic Conduit) **ii.** Area of Raceways and Number of Conduct (Conduit Fill) **jj.** Outlet, Device, Pull, and Junction Boxes **kk.** Box Volume and Fill **ll.** Auxiliary Gutters, Busways, Concrete, and Nonconcrete Raceways **mm.** Metal and Nonmetallic Wireways **nn.** Surface Metal and Nonmetallic Raceways **oo.** Underfloor Raceways **pp.** Cabletrays	6
9.	**Special Occupancies and Equipment (Including Swimming Pools)** **c.** Wiring of Mobile Home, Mobile Home Parks, RVs, and RV Parks **d.** Required Wiring to Swimming Pools, Fountains, and Hot Tubs	4
10.	**Low Voltage, Alarms, Signaling Systems, and Communications** **j.** Remote Control or Signaling Circuits **k.** Communication Circuits **l.** Equipment Operating at 50 volts or Less **m.** Fiber Optic **n.** Photovoltaics **o.** Remote Control **p.** Fire Alarms **q.** Circuit Wiring for Emergency Systems **r.** Communications Systems Wiring	2
11.	**Lighting and Signs** **h.** Fixtures Installation **i.** Fixtures Grounding **j.** Fixture Wiring **k.** Fluorescent Fixtures **l.** Fixture Construction Requirements **m.** Recessed Fixtures **n.** Lighting Systems that Operate at Less Than 30 volts	4
12.	**Safety** **s.** Job Site Sanitation **t.** Responsibility for Providing Personal Protective Equipment **u.** Excavation Safety **v.** Emergency Action Plans	4

	w. Safety Training Requirements **x.** Ventilation **y.** First Aid Kit Requirements **z.** Use of Personal Protective Equipment **aa.** Signs, Signals, and Barricades **bb.** Tools and Equipment **cc.** Ladders **dd.** Workplace Illumination **ee.** Scaffolds **ff.** Requirements for Work Around Toxic Materials **gg.** Material Cleanup and Disposal **hh.** Material Safety Data Sheets (MSDS) **ii.** Handling and Storing Materials **jj.** Fall Protection

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- *Code of Federal Regulations - 29 CFR Part 1926 (OSHA)*, with latest available amendments, *Candidates can access the Government website with this link* https://www.osha.gov/laws-regs/regulations/standardnumber/1926

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  OR
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RESIDENTIAL ELECTRICAL JOURNEYMAN

SCOPE OF WORK

Tests a candidate's knowledge of the installation, repair and alteration of electrical conductors, fixtures, appliances, apparatus, raceways, conduit and related equipment and fixtures that use electrical energy for light, heat, power, data and communications as it applies to one-, two-, or three-family residences in a supervised environment.

Effective thru 3/26/2025

80 Scored Items - 210 minutes - 70% Correct to Pass

Topic Information		# of Items
1.	**General Knowledge** **a.** Permits and Inspections **b.** Preservation of Structural Integrity **c.** Needs Analysis and Estimate	4
2.	**General Electrical Knowledge** **a.** Voltage, Current, and Resistance in Series, Parallel, and Combination Circuits **b.** Power Used in a Circuit **c.** Power Lost (called Heat Lost) in Any Circuit **d.** Fundamental AC Theory **e.** Fundamental Three-phase AC Theory **f.** Cost of Power Used in a Circuit **g.** System Troubleshooting and Testing **h.** Use of the National Electrical Codebook **i.** Understanding and Application of Definitions Used by the NEC **j.** Temporary Wiring **k.** Elevators and Escalators	12
3.	**Electrical Installation Requirements** **a.** Approved Methods of Installation of Electrical Equipment **b.** Approved Methods of Installation of Electrical Equipment in Excess of 600 volts	10
4.	**Services, Feeders, and Branch Circuits** **a.** Services **b.** Voltage Drop for Branch Circuits or Feeders **c.** Services in Excess of 600 volts **d.** Feeders **e.** Outside Branch Circuits and Feeders **f.** Branch Circuits **g.** Space-heating, Snow-melting and Pipe-heating Circuits **h.** Air-conditioning and Refrigeration Equipment	10

5.	**Overcurrent Protection** **a.** NEC Overcurrent Protection Requirements	6
6.	**Grounding and Bonding** **a.** General Requirements **b.** Grounding Electrode Conductors **c.** Equipment Grounding Conductors	8
7.	**Conductors and Cables** **a.** Install Underground Conductors and Cables **b.** Perform Vertical Installations **c.** Select Conductor **d.** Armored Cable, Type AC **e.** Metal-clad Cable, Type MC **f.** Nonmetallic-sheathed Cable, Types NM, NMC, NMS **g.** Service Entrance Cables, Types SE and USE **h.** Underground Feeder and Branch Circuit Cable, Type UF **i.** Mineral Insulated, Type MI **j.** Flat Cable Assemblies, Type FC, and Flat Conductor Cable, Type FCC **k.** Medium Voltage Cable, Type MV	6
8.	**Raceways and Boxes** **a.** General Raceway Requirements **b.** General Box Requirements **c.** Pull Boxes and Conduit Fittings **d.** Type RMC (Rigid Metal Conduit) **e.** Type EMT (Electric Metallic Conduit) **f.** Type IMC (Intermediate Metal Conduit) **g.** Type RNC (Rigid Nonmetallic Conduit) **h.** Type FMC (Flexible Metal Conduit) **i.** Type LFMC (Liquid-tight Flexible Metal Conduit) **j.** Type FMT (Flexible Metallic Tubing) **k.** Type HDPE (High-density Polyethylene Conduit) **l.** Type NUCC (Nonmetallic Underground Conduit with Conductors) **m.** Type LFNC (Liquid-tight Flexible Nonmetallic Conduit) **n.** Area of Raceways and Number of Conduct (Conduit Fill) **o.** Outlet, Device, Pull, and Junction Boxes **p.** Box Volume and Fill **q.** Auxiliary Gutters, Busways, Concrete, and Nonconcrete Raceways **r.** Metal and Nonmetallic Wireways **s.** Surface Metal and Nonmetallic Raceways **t.** Underfloor Raceways **u.** Cabletrays	6
9.	**Special Occupancies and Equipment (Including Swimming Pools)** **a.** Wiring of Mobile Home, Mobile Home Parks, RVs, and RV Parks **b.** Required Wiring to Swimming Pools, Fountains, and Hot Tubs	4
10.	**Low Voltage, Alarms, Signaling Systems, and Communications** **a.** Remote Control or Signaling Circuits **b.** Communication Circuits **c.** Equipment Operating at 50 volts or Less **d.** Fiber Optic **e.** Photovoltaics **f.** Remote Control	6
	g. Fire Alarms **h.** Circuit Wiring for Emergency Systems **i.** Communications Systems Wiring	
11.	**Lighting and Signs** **a.** Fixtures Installation **b.** Fixtures Grounding **c.** Fixture Wiring **d.** Fluorescent Fixtures **e.** Fixture Construction Requirements **f.** Recessed Fixtures **g.** Lighting Systems that Operate at Less Than 30 volts	4
12.	**Safety** **a.** Job Site Sanitation **b.** Responsibility for Providing Personal Protective Equipment **c.** Excavation Safety **d.** Emergency Action Plans **e.** Safety Training Requirements **f.** Ventilation **g.** First Aid Kit Requirements **h.** Use of Personal Protective Equipment **i.** Signs, Signals, and Barricades **j.** Tools and Equipment **k.** Ladders **l.** Workplace Illumination **m.** Scaffolds **n.** Requirements for Work Around Toxic Materials **o.** Material Cleanup and Disposal **p.** Material Safety Data Sheets (MSDS) **q.** Handling and Storing Materials **r.** Fall Protection	4

Effective 3/27/2025

80 Scored Items - 210 minutes - 70% Correct to Pass

Topic Information		# of Items
1.	**General Knowledge** **d.** Permits and Inspections **e.** Preservation of Structural Integrity **f.** Needs Analysis and Estimate	4
2.	**General Electrical Knowledge** **l.** Voltage, Current, and Resistance in Series, Parallel, and Combination Circuits **m.** Power Used in a Circuit **n.** Power Lost (called Heat Lost) in Any Circuit **o.** Fundamental AC Theory **p.** Fundamental Three-phase AC Theory **q.** Cost of Power Used in a Circuit **r.** System Troubleshooting and Testing **s.** Use of the National Electrical Codebook **t.** Understanding and Application of Definitions Used by the NEC **u.** Temporary Wiring **v.** Elevators and Escalators	12
3.	**Electrical Installation Requirements** **c.** Approved Methods of Installation of Electrical Equipment **d.** Approved Methods of Installation of Electrical Equipment in Excess of 600 volts	10
4.	**Services, Feeders, and Branch Circuits** **i.** Services	10

	j. Voltage Drop for Branch Circuits or Feeders **k.** Services in Excess of 600 volts **l.** Feeders **m.** Outside Branch Circuits and Feeders **n.** Branch Circuits **o.** Space-heating, Snow-melting and Pipe-heating Circuits **p.** Air-conditioning and Refrigeration Equipment	
5.	**Overcurrent Protection** **b.** NEC Overcurrent Protection Requirements	8
6.	**Grounding and Bonding** **d.** General Requirements **e.** Grounding Electrode Conductors **f.** Equipment Grounding Conductors	8
7.	**Conductors and Cables** **l.** Install Underground Conductors and Cables **m.** Perform Vertical Installations **n.** Select Conductor **o.** Armored Cable, Type AC **p.** Metal-clad Cable, Type MC **q.** Nonmetallic-sheathed Cable, Types NM, NMC, NMS **r.** Service Entrance Cables, Types SE and USE **s.** Underground Feeder and Branch Circuit Cable, Type UF **t.** Mineral Insulated, Type MI **u.** Flat Cable Assemblies, Type FC, and Flat Conductor Cable, Type FCC **v.** Medium Voltage Cable, Type MV	8
8.	**Raceways and Boxes** **v.** General Raceway Requirements **w.** General Box Requirements **x.** Pull Boxes and Conduit Fittings **y.** Type RMC (Rigid Metal Conduit) **z.** Type EMT (Electric Metallic Conduit) **aa.** Type IMC (Intermediate Metal Conduit) **bb.** Type RNC (Rigid Nonmetallic Conduit) **cc.** Type FMC (Flexible Metal Conduit) **dd.** Type LFMC (Liquid-tight Flexible Metal Conduit) **ee.** Type FMT (Flexible Metallic Tubing) **ff.** Type HDPE (High-density Polyethylene Conduit) **gg.** Type NUCC (Nonmetallic Underground Conduit with Conductors) **hh.** Type LFNC (Liquid-tight Flexible Nonmetallic Conduit) **ii.** Area of Raceways and Number of Conduct (Conduit Fill) **jj.** Outlet, Device, Pull, and Junction Boxes **kk.** Box Volume and Fill **ll.** Auxiliary Gutters, Busways, Concrete, and Nonconcrete Raceways **mm.** Metal and Nonmetallic Wireways **nn.** Surface Metal and Nonmetallic Raceways **oo.** Underfloor Raceways **pp.** Cabletrays	6
9.	**Special Occupancies and Equipment (Including Swimming Pools)** **c.** Wiring of Mobile Home, Mobile Home Parks, RVs, and RV Parks **d.** Required Wiring to Swimming Pools, Fountains, and Hot Tubs	4
10.	**Low Voltage, Alarms, Signaling Systems, and Communications** **j.** Remote Control or Signaling Circuits **k.** Communication Circuits **l.** Equipment Operating at 50 volts or Less **m.** Fiber Optic **n.** Photovoltaics **o.** Remote Control **p.** Fire Alarms **q.** Circuit Wiring for Emergency Systems **r.** Communications Systems Wiring	2
11.	**Lighting and Signs** **h.** Fixtures Installation **i.** Fixtures Grounding **j.** Fixture Wiring **k.** Fluorescent Fixtures **l.** Fixture Construction Requirements **m.** Recessed Fixtures **n.** Lighting Systems that Operate at Less Than 30 volts	4
12.	**Safety** **s.** Job Site Sanitation **t.** Responsibility for Providing Personal Protective Equipment **u.** Excavation Safety **v.** Emergency Action Plans **w.** Safety Training Requirements **x.** Ventilation **y.** First Aid Kit Requirements **z.** Use of Personal Protective Equipment **aa.** Signs, Signals, and Barricades **bb.** Tools and Equipment **cc.** Ladders **dd.** Workplace Illumination **ee.** Scaffolds **ff.** Requirements for Work Around Toxic Materials **gg.** Material Cleanup and Disposal **hh.** Material Safety Data Sheets (MSDS) **ii.** Handling and Storing Materials **jj.** Fall Protection	4

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REFINERY ELECTRICAL JOURNEYMAN

SCOPE OF WORK

100 Scored Items - 240 minutes - 70% Correct to Pass

Topic Information		# of Items
1.	**General Electrical Knowledge** **a.** Permits and Inspections **b.** Preservation of Structural Integrity **c.** Needs Analysis and Estimate **d.** Voltage, Current, and Resistance in Series, Parallel, and Combination Circuits **e.** Power Used in a Circuit **f.** Power lost (called Heat Lost) in Any Circuit **g.** Fundamental AC Theory **h.** Fundamental Three-phase AC Theory **i.** Cost of Power Used in a Circuit **j.** Troubleshooting and Test Systems **k.** National Electrical Codebook **l.** Definitions Used by the NEC **m.** Temporary Wiring **n.** Cranes and Hoists **o.** Elevators and Escalators	10
2.	**Electrical Installation Requirements** **a.** Approved Methods of Installation of Electrical Equipment **b.** Approved Methods of Installation of Electrical Equipment in Excess of 600 volts	4
3.	**Services, Feeders, and Branch Circuits** **a.** Services **b.** Voltage Drop for Branch Circuits or Feeders **c.** Services in Excess of 600 volts **d.** Feeders **e.** Outside Branch Circuits and Feeders **f.** Branch Circuits **g.** Space-heating, Snow-melting, and Pipe-heating Circuits **h.** Air-conditioning and Refrigeration Equipment	6
4.	**Overcurrent Protection** **a.** NEC Overcurrent Protection Requirements	6
5.	**Grounding and Bonding** **a.** General Requirements **b.** Required Sizes of Grounding Electrode Conductors **c.** Required Sizes of Equipment Grounding Conductors	10
6.	**Conductors and Cables** **a.** Underground Conductors and Cables **b.** Vertical Installations **c.** Selecting Conductors **d.** Armored Cable, Type AC **e.** Metal-clad Cable, Type MC **f.** Nonmetallic-sheathed Cable, Types NM, NMC, NMS **g.** Service Entrance Cables, Types SE and USE **h.** Underground Feeder and Branch Circuit Cable, Type UF **i.** Mineral Insulated, Type MI **j.** Flat Cable Assemblies, Type FC, and Flat Conductor Cable, Type FCC **k.** Medium Voltage Cable, Type MV	6
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	v. Cabletrays	
8.	**Low Voltage, Alarms, Signaling Systems, and Communications** a. Remote Control or Signaling Circuits b. Communication Circuits c. Equipment Operating at 50 volts or Less d. Fiber Optics e. Photovoltaics f. Remote Controls g. Fire Alarms h. Circuit Wiring for an Emergency System i. Communications Systems Wiring	4
9.	**Lighting and Signs** a. Fixture Installation b. Fixture Grounding c. Fixture Wiring d. Fluorescent Fixtures e. Fixture Construction Requirements f. Recessed Fixtures g. Lighting Systems that Operate at Less Than 30 volts h. Neon Lighting and Electric Signs	4
10.	**Safety** a. Job Site Sanitation b. Responsibility for Providing Personal Protective Equipment c. Excavation Safety d. Emergency Action Plans e. Safety Training Requirements f. Ventilation g. First Aid Kit Requirements h. Use of Personal Protective Equipment i. Signs, Signals, and Barricades j. Tools and Equipment k. Ladders l. Workplace Illumination m. Scaffolds n. Requirements for Work Around Toxic Materials o. Material Cleanup and Disposal p. Material Safety Data Sheets (MSDS) q. Handling and Storing Materials r. Fall Protection	5
11.	**Motors and Transformers** a. Motors Used in Dwellings b. Motor Branch Circuits in Industrial and Commercial Locations c. Feeder Transformers d. Use of Transformers	4
12.	**Hazardous Locations** a. Hazardous Location Classifications b. Hazardous Materials c. Equipment used in Hazardous Locations d. Ventilation and Seals e. Underground Wiring f. Fuel Dispensing Location Requirements	35

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- *International Residential Code for One-and Two-Family Dwellings*, 2018 edition, International Code Council, 5203 Leesburg Pike, Suite 600, Falls Church, VA 22041, (800) 786-4452, www.iccsafe.org, with Oklahoma Revisions found at http://ok.gov/oubcc/Codes_&_Rules/Adopted_Building_Codes

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- Hazardous Locations, 2005, International Association of Electrical Inspectors, (800) 786-4234, www.iaei.org

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MECHANICAL BUSINESS AND LAW

# of Questions	Passing %	Passing (Raw)	Time Allowed
50	70	35	120 minutes

	Topic Information	# of Items
1.	**Bidding and Estimating** **a.** General Estimating **b.** Bid	10
2.	**Project Management and Supervision** **a.** General Project Oversight **b.** Oversee Budget **c.** Oversee Quality Control **d.** Oversee Materials Control **e.** Manage Jobsite Safety **f.** Schedule **g.** Potentially Hazardous Materials **h.** Environmental Protection **i.** Submittals and Reports **j.** Ethics **k.** Liens	7
3.	**Contracts** **a.** Terminology **b.** Required Elements/Components **c.** Contract Types **d.** Change Orders **e.** Standardized Documents **f.** Interpretation **g.** Warranties **h.** Documents/Inclusions **i.** Other Obligations	5
4.	**Financial** **a.** Business Organization Characteristics, Advantages, and Disadvantages **b.** Business Start-up **c.** Accounting method **d.** Cash Flow Terminology **e.** Accounts Receivable **f.** Accounts Payable **g.** Balance Sheet **h.** Income Statement **i.** Taxes on Company Income **j.** Obtaining Financing **k.** Checking Account **l.** Financial Ratios	8
5.	**Labor and Personnel** **a.** ADA **b.** Labor Standards **c.** Requirements for Non-citizens and/or Non-residents **d.** Workers' Compensation **e.** Federal or State OSHA **f.** New Hires **g.** Personnel Record Keeping **h.** Other Requirements	5
6.	**Risk Management** **a.** Insurance **b.** Bonds	4
7.	**Payroll and Payroll Taxes** **a.** Taxes **b.** Forms and Due Dates	5
8.	**Licensing Requirements** **a.** Required Insurance/Bonds **b.** Renewal	6

REFERENCE LIST

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This examination is OPEN BOOK.

The following reference materials are allowed in the examination center:

- *State of Oklahoma, Construction Industries Board, Unofficial Administrative Rules & Courtesy Exam Study Aids Book*, current edition (available at the Construction Industries Board Office – no fee).
- *Oklahoma Mechanical Licensing Act*, Oklahoma Statutes, Title 59, Chapter 43A, Oklahoma Construction Industries Board, 2401 N.W. 23rd Street, Suite 2F, Oklahoma City, OK 73107, www.ok.gov/cib
- *Oklahoma Mechanical Industry Regulations*, Oklahoma Administrative Code, Title 158, Chapter 50, Oklahoma Construction Industries Board, 2401 N.W. 23rd Street, Suite 2F, Oklahoma City, OK 73107, www.ok.gov/cib
- *Oklahoma Fine Schedule of the Construction Industries Board*, Oklahoma Administrative Code, Title 158, Chapter 10, Oklahoma Construction Industries Board, 2401 N.W. 23rd Street, Suite 2F, Oklahoma City, OK 73107, www.ok.gov/cib
- *Oklahoma Lien Law, Oklahoma Statutes*, Title 42, Chapter 3, Oklahoma Construction Industries Board, 2401 N.W. 23rd Street, Suite 2F, Oklahoma City, OK 73107, www.ok.gov/cib
- *NASCLA Contractors Guide to Business, Law and Project Management*, Basic 14th Edition, National Association of State Contractors Licensing Agencies (NASCLA), Telephone: (623) 587-9354, www.nascla.org
- Oklahoma Workers' Compensation Act, Oklahoma Statutes, Title 85A, Chapter 1, Oklahoma Construction Industries Board, 2401 N.W. 23rd Street, Suite 2F, Oklahoma City, OK 73107, www.ok.gov/cib
  OR
  Oklahoma Workers' Compensation Act Statutory Excerpts, Oklahoma Statutes, Title 85A, Chapter 1, Oklahoma Construction Industries Board, 2401 N.W. 23rd Street, Suite 2F, Oklahoma City, OK 73107, www.ok.gov/cib

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NATURAL GAS CONTRACTOR

SCOPE OF WORK

Tests the candidate's knowledge on the installation, repair, alteration or extension of gas piping and gas mains.

# of Questions	Passing %	Passing (Raw)	Time Allowed
40	70	28	120 minutes

	Topic Information	# of Items
1.	**General Fuel Gas Piping -- Knowledge, Definitions, and Regulations** **a.** Testing and Inspection **b.** Pipe Material Properties and Requirements	10
2.	**Pipe Sizing**	12
3.	**Pipe Installation** **a.** Indoor and Outdoor Installation Requirements **b.** Gas Pressure Regulators **c.** Structural Safety **d.** Hangers and Supports **e.** Direction Changes **f.** Concealed Locations **g.** Joints and Connections **h.** Valves and Controls **i.** Outlets **j.** Drip Legs and Sediment Traps **k.** Piping Protection	15
4.	**Safety** **a.** Sanitation **b.** Contractor Responsibilities **c.** Excavation Safety **d.** Ventilation and Confined Space **e.** Safety Training **f.** First Aid Kits **g.** PPE **h.** Signs, Signals and Barricades **i.** Fall Protection **j.** Ladders and Scaffolds **k.** Tools and Equipment **l.** MSDS	3

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The following reference materials are allowed in the examination center:

- *International Fuel Gas Code*, 2018 edition, International Code Council, 5203 Leesburg Pike, Suite 600, Falls Church, VA 22041, (800) 786-4452, www.iccsafe.org, with Oklahoma Revisions http://ok.gov/oubcc/Codes_&_Rules/Adopted_Building_Codes/

- *Code of Federal Regulations - 29 CFR Part 1926 (OSHA)*, with latest available amendments, *Candidates can access the Government website with this link* https://www.osha.gov/laws-regs/regulations/standardnumber/1926

  Hard copy can be purchased from Mancomm.com. https://mancomm.com/29-cfr-1926-osha-construction-industry-regulations-standards/. Amazon and other retailers sell the Mancomm OSHA publications.
  OR
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NATURAL GAS JOURNEYMAN

SCOPE OF WORK

Tests the candidate's knowledge on the installation, repair, alteration or extension of gas piping and gas mains.

# of Questions	Passing %	Passing (Raw)	Time Allowed
30	70	21	90 minutes

Topic Information		# of Items
1.	**General Fuel Gas Piping -- Knowledge, Definitions, and Regulations** **a.** Testing and Inspection **b.** Pipe Material Properties and Requirements	8
2.	**Pipe Sizing**	4
3.	**Pipe Installation** **a.** Indoor and Outdoor Installation Requirements **b.** Gas Pressure Regulators **c.** Structural Safety **d.** Hangers and Supports **e.** Direction Changes **f.** Concealed Locations **g.** Joints and Connections **h.** Valves and Controls **i.** Outlets **j.** Drip Legs and Sediment Traps **k.** Piping Protection	15
4.	**Safety** **a.** Excavations **b.** Ventilation and Confined Space **c.** PPE **d.** Signs, Signals and Barricades **e.** Fall Protection **f.** Ladders and Scaffolds **g.** Tools and Equipment **h.** MSDS	3

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PROCESS PIPING CONTRACTOR

SCOPE OF WORK

Tests the candidate's knowledge on the installation, repair, alteration or extension of the piping and tubing which conveys liquids or gases which is used directly in research, laboratory, or production processes.

# of Questions	Passing %	Passing (Raw)	Time Allowed
40	70	28	120 minutes

Topic Information		# of Items
1.	**General Knowledge and Definitions**	6
2.	**Estimating and Plan Reading** **a.** Plan Reading **b.** Offset Calculations **c.** Material Estimates	7
3.	**Pipe Materials, Uses, and Properties** **a.** Material Properties and Selection **b.** Pipe Sizing	5
4.	**Piping Installation and Fitting** **a.** Indoor and Outdoor Piping **b.** Pipe Welding **c.** Pipe Brazing and Soldering **d.** Mechanical Joints **e.** Threaded Joints **f.** Compression Fittings **g.** Chemical Adhesives **h.** Tube Bending **i.** System Testing **j.** Line Labeling	8
5.	**Hangers and Supports** **a.** Measure and Install Pipe Supports	5

6.	**Valves and Controls** **a.** Valve Selection **b.** Valve and Control Installation **c.** Maintenance and Troubleshooting	6
7.	**Safety** **a.** Contractor Responsibilities **b.** Safety Training **c.** Ventilation and Confined Space **d.** First Aid Kits **e.** Personal Protective Equipment (PPE) **f.** Material Safety Data Sheets (MSDS) **g.** Toxic Materials **h.** Fall Protection **i.** Lockout/Tagout **j.** Ladders and Scaffolds	3

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  OR
  Code of Federal Regulations - 29 CFR Part 1926 Selections by PSI, with latest available amendments, 866-589-3088, http://www.psionlinestore.com
- *Facility Piping Systems Handbook*, Second Edition, 2002, McGraw-Hill Publishing, Inc., PO Box 182604, Columbus, OH 43272, (800) 338-3987, www.mhprofessional.com
- *International Mechanical Code*, 2018 edition, International Code Council, 5203 Leesburg Pike, Suite 600, Falls Church, VA 22041, (800) 786-4452, www.iccsafe.org, with Oklahoma Revisions http://ok.gov/oubcc/Codes_&_Rules/Adopted_Building_Codes/
- *Mathematics for Plumbers and Pipefitters*, Lee Smith, 8th Edition, 2013, www.cengage.com
- *ASME A13.1:* Scheme for the Identification of Piping Systems, 2007, American Society of Mechanical Engineers (ASME), Three Park Avenue, New York, NY 10065, (800) 843-2763, www.asme.org
- *ASME B31.3-2004*: Process Piping, 2004, American Society of Mechanical Engineers (ASME), Three Park Avenue, New York, NY 10065, (800) 843-2763, www.asme.org

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PROCESS PIPING JOURNEYMAN

SCOPE OF WORK

Tests the candidate's knowledge on the installation, repair, alteration or extension of the piping and tubing which conveys liquids or gases which is used directly in research, laboratory, or production processes only while in the employ of a process piping contractor.

# of Questions	Passing %	Passing (Raw)	Time Allowed
35	70	25	120 minutes

Topic Information		# of Items
1.	**General Knowledge and Definitions**	6
2.	**Plan Reading**	3
3.	**Pipe Materials, Uses, and Properties** **a.** Material Properties and Selection **b.** Pipe Sizing	5
4.	**Piping Installation and Fitting** **a.** Indoor and Outdoor Piping **b.** Pipe Welding **c.** Pipe Brazing and Soldering **d.** Mechanical Joints **e.** Threaded Joints **f.** Compression Fittings **g.** Chemical Adhesives **h.** Tube Bending **i.** System Testing **j.** Line Labeling	8
5.	**Hangers and Supports** **a.** Measure and Install Pipe Supports	5
6.	**Valves and Controls** **a.** Valve Selection **b.** Valve and Control Installation **c.** Maintenance and Troubleshooting	5

7.	**Safety** **a.** Ventilation and Confined Space **b.** Personal Protective Equipment (PPE) **c.** Material Safety Data Sheets (MSDS) **d.** Toxic Materials **e.** Fall Protection **f.** Lockout/Tagout **g.** Ladders and Scaffolds	3

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The following reference materials are allowed in the examination center:

- *Pipefitter's Handbook*, 1967, 3rd Edition, Forest R. Linsey, Industrial Press, Inc., www.industrialpress.com

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SHEET METAL CONTRACTOR

SCOPE OF WORK

Those who are qualified to manufacture, assemble, cast, cut, shape, forge, fabricate, weld, repair, recondition, adjust and install sheet rolled metal of any kind or combination and all other air-conveyor systems and air handling systems regardless of materials used, including all equipment and all reinforcements in connection therewith.

# of Questions	Passing %	Passing (Raw)	Time Allowed
60	70	42	120 minutes

Topic Information		# of Items
1.	**General Knowledge** **a.** Tools and Equipment **b.** Materials **c.** Welding **d.** Blueprints and Plan Reading **e.** Air Properties and Behavior **f.** Testing, Adjusting and Balancing (TAB)	13
2.	**Duct Sizing, Design, and Hanging and Support Requirements** **a.** Duct Sizing **b.** Duct Design **c.** Hangers and Supports	6
3.	**Duct Fabrication and Installation** **a.** Rectangular Metal Ducts **b.** Oval and Flexible Metal Ducts **c.** Fiberglass Ducts **d.** Duct Accessories and Exterior Components	13
4.	**Plenums**	6
5.	**Appliance Venting and Combustion Air** **a.** Venting and Combustion Air Sizing **b.** Clearance to Combustibles **c.** Equipment Installation **d.** Vent and Combustion Air Supply Termination	5
6.	**Ventilation and Exhaust Devices** **a.** Device Selection and Installation **b.** Exhaust Ducts **c.** Exhaust System Terminations **d.** Exhaust Fans **e.** Auxiliary Equipment **f.** Solid Fuel Systems **g.** Downdraft Appliance Ventilation	14
7.	**Safety** **a.** Contractor Responsibilities **b.** Safety Training **c.** First Aid Kits **d.** Personal Protective Equipment (PPE) **e.** Signs, Signals, and Barricades **f.** Ladders **g.** Fall Protection **h.** Lockout/Tagout **i.** MSDS	3

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The following reference materials are allowed in the examination center:

- *ACCA Ductulator* (Duct Slide Rule), Air Conditioning Contractors of America (ACCA), 2800 Shirlington Road, Suite 300, Arlington, VA 22206, (703) 575-4477, www.acca.org
- *International Mechanical Code*, 2018 edition, International Code Council, 5203 Leesburg Pike, Suite 600, Falls Church, VA 22041, (800) 786-4452,

www.iccsafe.org, with Oklahoma Revisions http://ok.gov/oubcc/Codes_&_Rules/Adopted_Building_Codes/

- *Fibrous Glass Duct Construction Standards*, Fifth Edition, 2002, North American Insulation Manufacturers Association (NAIMA), 44 Canal Center Plaza, Suite 310, Alexandria, VA 22314, (703) 684-0084, www.naima.org
- *Code of Federal Regulations - 29 CFR Part 1926 (OSHA)*, with latest available amendments, *Candidates can access the Government website with this link* https://www.osha.gov/laws-regs/regulations/standardnumber/1926

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- *HVAC Duct Construction Standards, Metal and Flexible*, 2005, 3rd edition, Sheet Metal and Air Conditioning Contractors' National Association, Inc., (703) 803-2980, www.smacna.org
- *Sheet Metal*, 1995 Edition, American Technical Publishers (ATP), 1155 West 175th Street, Homewood, IL 60430-4600, (800) 323-3471, www.americantech.net

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SHEET METAL JOURNEYMAN

SCOPE OF WORK

Those who are qualified to fabricate, install, repair, alter, or extend sheet metal work while employed or supervised by a sheet metal contractor.

# of Questions	Passing %	Passing (Raw)	Time Allowed
50	70	35	120 minutes

	Topic Information	# of Items
1.	**General Knowledge** **a.** Tools and Equipment **b.** Materials **c.** Welding **d.** Blueprints and Plan Reading	12
	e. Air Properties and Behavior **f.** Testing, Adjusting and Balancing (TAB)	
2.	**Duct Sizing, Design, and Hanging and Support Requirements** **a.** Duct Sizing **b.** Duct Design **c.** Hangers and Supports	4
3.	**Duct Fabrication and Installation** **a.** Rectangular Metal Ducts **b.** Oval and Flexible Metal Ducts **c.** Fiberglass Ducts **d.** Duct Accessories and Exterior Components	10
4.	**Plenums**	4
5.	**Appliance Venting and Combustion Air** **a.** Venting and Combustion Air Sizing **b.** Clearance to Combustibles **c.** Equipment Installation **d.** Vent and Combustion Air Supply Termination	5
6.	**Ventilation and Exhaust Devices** **a.** Device Selection and Installation **b.** Exhaust Ducts **c.** Exhaust System Terminations **d.** Exhaust Fans **e.** Auxiliary Equipment **f.** Solid Fuel Systems **g.** Downdraft Appliance Ventilation	12
7.	**Safety** **a.** Contractor Responsibilities **b.** Safety Training **c.** First Aid Kits **d.** Personal Protective Equipment (PPE) **e.** Signs, Signals and Barricades **f.** Ladders **g.** Fall Protection **h.** Lockout/Tagout **i.** MSDS	3

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- *International Mechanical Code*, 2018 edition, International Code Council, 5203 Leesburg Pike, Suite 600, Falls Church, VA 22041, (800) 786-4452,

www.iccsafe.org, with Oklahoma Revisions http://ok.gov/oubcc/Codes_&_Rules/Adopted_Building_Codes/

- *Fibrous Glass Duct Construction Standards*, Fifth Edition, 2002, North American Insulation Manufacturers Association (NAIMA), 44 Canal Center Plaza, Suite 310, Alexandria, VA 22314, (703) 684-0084, www.naima.org

- *HVAC Duct Construction Standards*, Metal and Flexible, 2005, 3rd edition, Sheet Metal and Air Conditioning Contractors' National Association, Inc., (703) 803-2980, www.smacna.org

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HVACR CONTRACTOR, LIMITED

SCOPE OF WORK

Tests a candidate's knowledge of the installation, maintenance, repair, fabrication, alteration or extension of air conditioning, refrigeration, heating, and ventilation, including ductwork, within a complete system limited to twenty-five tons cooling and five-hundred thousand BTU heating, and related appurtenances, apparatus, piping vessels, ducts and insulation.

# of Questions	Passing %	Passing (Raw)	Time Allowed
80	70	56	210 minutes

Topic	Information	# of Items
1.	**Electrical Knowledge and Controls** **a.** General Electrical Theory and Knowledge **b.** Motors **c.** D/C Circuits **d.** A/C Circuits **e.** Controls	15
2.	**Natural Gas** **a.** Piping Valves **b.** Connectors **c.** Accessories **d.** Hangers and Supports **e.** Sizing **f.** Materials **g.** Testing	12
3.	**Air Distribution Systems** **a.** Duct Definitions **b.** Sizing and Design **c.** Duct Assembly and Installation **d.** Hangers and Supports **e.** Duct Materials and Shapes **f.** Duct Insulation **g.** Fire and Smoke Control **h.** Hoods and Exhaust Systems **i.** Testing and Balancing **j.** Ventilation Requirements **k.** Plans and Symbols	15
4.	**Refrigeration and Air Conditioning Systems** **a.** Theory **b.** Refrigerants **c.** Equipment Sizing and Design **d.** Equipment and Components **e.** Piping **f.** Equipment Installation **g.** System Operation, Troubleshooting, and Maintenance	20
5.	**Heating Systems** **a.** Heating Theory and Types **b.** Combustion Air **c.** Vents and Chimneys **d.** Equipment Sizing **e.** Heating Equipment **f.** Equipment Installation **g.** System Operation, Troubleshooting, and Maintenance **h.** Hydronics and Hydronic Piping	15
6.	**Safety** **a.** Responsibility for Providing Personal Protective Equipment to Employees **b.** Safety Training Requirements **c.** Adequate Ventilation for Employees **d.** First Aid Kit Requirements **e.** Use of Personal Protective Equipment **f.** Material Safety Data Sheets (MSDS) **g.** Requirements for Work Around Toxic Materials **h.** Fall Protection **i.** Lockout/Tagout Procedures **j.** Ladders **k.** Scaffolds	3

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- *International Fuel Gas Code*, 2018 edition, International Code Council, 5203 Leesburg Pike, Suite 600, Falls Church, VA 22041, (800) 786-4452, www.iccsafe.org, with Oklahoma Revisions http://ok.gov/oubcc/Codes_&_Rules/Adopted_Building_Codes/
- *Modern Refrigeration and Air Conditioning*, Althouse, Turnquist, Bracciano, 20th or 21st edition, Goodheart-Willcox, www.g-w.com
  OR
  Refrigeration & Air Conditioning Technology, Fifth Edition, 2005 Delmar Publishing/Thomson Learning, PO Box 6904, Florence, KY 41022, (800) 347-7707, www.delmarlearning.com
- *Manual J - Residential Load Calcs*, reprinted 2006, Eighth Full Edition, Air Conditioning Contractors of America (ACCA), 2800 Shirlington Road, Suite 300. Arlington, VA 22206, (703) 575-4477, www.acca.org
- *Mathematics for Plumbers and Pipefitters*, Lee Smith, 8th Edition, 2013, www.cengage.com
- *Code of Federal Regulations - 29 CFR Part 1926 (OSHA)*, with latest available amendments, *Candidates can access the Government website with this link* https://www.osha.gov/laws-regs/regulations/standardnumber/1926

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HVACR JOURNEYMAN LIMITED

SCOPE OF WORK

Tests a candidate's knowledge of the installation, maintenance, repair, fabrication, alteration or extension of air conditioning, refrigeration, heating, and ventilation, including ductwork, within a complete system limited to twenty-five tons cooling and five-hundred thousand BTU heating, and related appurtenances, apparatus, piping vessels, ducts and insulation while employed or supervised by a refrigeration contractor.

# of Questions	Passing %	Passing (Raw)	Time Allowed
60	70	42	180 minutes

	Topic Information	# of Items
1.	**Electrical Knowledge and Controls** **a.** General Electrical Theory and Knowledge **b.** Motors **c.** D/C Circuits **d.** A/C Circuits **e.** Controls	15
2.	**Natural Gas** **a.** Piping Valves **b.** Connectors **c.** Accessories **d.** Hangers and Supports **e.** Sizing **f.** Materials **g.** Testing **h.** Installation and Assembly	9
3.	**Air Distribution Systems** **a.** Duct Definitions **b.** Sizing and Design **c.** Duct Assembly and Installation **d.** Hangers and Supports **e.** Duct Materials and Shapes **f.** Duct Insulation **g.** Fire and Smoke Control	10

	h. Hoods and Exhaust Systems **i.** Testing and Balancing **j.** Ventilation Requirements **k.** Plans and Symbols	
4.	**Refrigeration and Air Conditioning Systems** **a.** Theory **b.** Refrigerants **c.** Equipment Sizing and Design **d.** Equipment and Components **e.** Piping **f.** Equipment Installation **g.** System Operation, Troubleshooting, and Maintenance	13
5.	**Heating Systems** **a.** Heating Theory and Types **b.** Combustion Air **c.** Vents and Chimneys **d.** Equipment Sizing **e.** Heating Equipment **f.** Equipment Installation **g.** System Operation, Troubleshooting, and Maintenance **h.** Hydronics and Hydronic Piping	10
6.	**Safety** **a.** Responsibility for Providing Personal Protective Equipment to Employees **b.** Safety Training Requirements **c.** Adequate Ventilation for Employees **d.** First Aid Kit Requirements **e.** Use of Personal Protective Equipment **f.** Material Safety Data Sheets (MSDS) **g.** Requirements for Work Around Toxic Materials **h.** Fall Protection **i.** Lockout/Tagout Procedures **j.** Ladders **k.** Scaffolds	3

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- *International Mechanical Code*, 2018 edition, International Code Council, 5203 Leesburg Pike, Suite 600, Falls Church, VA 22041, (800) 786-4452, www.iccsafe.org, with Oklahoma Revisions http://ok.gov/oubcc/Codes_&_Rules/Adopted_Building_Codes/
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  OR

  Refrigeration & Air Conditioning Technology, Fifth Edition, 2005 Delmar Publishing/Thomson Learning, PO Box 6904, Florence, KY 41022, (800) 347-7707, www.delmarlearning.com
- *Mathematics for Plumbers and Pipefitters*, Lee Smith, 8th Edition, 2013, www.cengage.com
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HVACR CONTRACTOR UNLIMITED

SCOPE OF WORK

Tests a candidate's knowledge of the installation, maintenance, repair, fabrication, alteration or extension of air conditioning, refrigeration, heating, and ventilating, including ductwork within a complete system unlimited in horsepower or tons, and related appurtenances, piping vessels, ducts and insulation.

# of Questions	Passing %	Passing (Raw)	Time Allowed

90	70	63	240 minutes

Topic Information		# of Items
1.	**Electrical Knowledge and Controls** **a.** General Electrical Theory and Knowledge **b.** Motors **c.** D/C Circuits **d.** A/C Circuits **e.** Controls	15
2.	**Natural Gas** **a.** Piping Valves **b.** Connectors **c.** Accessories **d.** Hangers and Supports **e.** Sizing **f.** Materials **g.** Testing	12
3.	**Air Distribution Systems** **a.** Duct Definitions **b.** Sizing and Design **c.** Duct Assembly and Installation **d.** Hangers and Supports **e.** Duct Materials and Shapes **f.** Duct Insulation **g.** Fire and Smoke Control **h.** Hoods and Exhaust Systems **i.** Testing and Balancing **j.** Ventilation Requirements **k.** Plans and Symbols	25
4.	**Refrigeration and Air Conditioning Systems** **a.** Theory **b.** Refrigerants **c.** Equipment Sizing and Design **d.** Equipment and Components **e.** Piping **f.** Equipment Installation **g.** System Operation, Troubleshooting, and Maintenance	20
5.	**Heating Systems** **a.** Heating Theory and Types **b.** Combustion Air **c.** Vents and Chimneys **d.** Equipment Sizing **e.** Heating Equipment **f.** Equipment Installation **g.** System Operation, Troubleshooting, and Maintenance **h.** Hydronics and Hydronic Piping	15
6.	**Safety** **a.** Responsibility for Providing Personal Protective Equipment to Employees **b.** Safety Training Requirements **c.** Adequate Ventilation for Employees **d.** First Aid Kit Requirements **e.** Use of Personal Protective Equipment **f.** Material Safety Data Sheets (MSDS) **g.** Requirements for Work Around Toxic Materials **h.** Fall Protection **i.** Lockout/Tagout Procedures **j.** Ladders **k.** Scaffolds	3

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  OR
  Refrigeration & Air Conditioning Technology, Fifth Edition, 2005 Delmar Publishing/Thomson Learning, PO Box 6904, Florence, KY 41022, (800) 347-7707, www.delmarlearning.com
- *Manual N - Load Calculation for Small Commercial Buildings*, Fifth Edition, 2008, Air Conditioning Contractors of America (ACCA), 2800 Shirlington Road, Suite 300, Arlington, VA 22206, (703) 575-4477, www.acca.org
- *Mathematics for Plumbers and Pipefitters*, Lee Smith, 8th Edition, 2013, www.cengage.com
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HVACR JOURNEYMAN UNLIMITED

SCOPE OF WORK

Tests a candidate's knowledge of the installation, maintenance, repair, fabrication, alteration or extension of air conditioning, refrigeration, heating, and ventilating, including ductwork within a complete system unlimited in horsepower or tons, and related appurtenances, piping vessels, ducts and insulation while employed by a HVACR contractor.

# of Questions	Passing %	Passing (Raw)	Time Allowed
70	70	49	180 minutes

	Topic Information	# of Items
1.	**Electrical Knowledge and Controls** **a.** General Electrical Theory and Knowledge **b.** Motors **c.** D/C Circuits **d.** A/C Circuits **e.** Controls	15
2.	**Natural Gas** **a.** Piping Valves **b.** Connectors **c.** Accessories **d.** Hangers and Supports **e.** Sizing **f.** Materials **g.** Testing **h.** Installation and Assembly	10
3.	**Air Distribution Systems** **a.** Duct Definitions **b.** Sizing and Design **c.** Duct Assembly and Installation **d.** Hangers and Supports **e.** Duct Materials and Shapes **f.** Duct Insulation **g.** Fire and Smoke Control **h.** Hoods and Exhaust Systems **i.** Testing and Balancing **j.** Ventilation Requirements **k.** Plans and Symbols	16
4.	**Refrigeration and Air Conditioning Systems** **a.** Theory **b.** Refrigerants **c.** Equipment Sizing and Design **d.** Equipment and Components **e.** Piping **f.** Equipment Installation **g.** System Operation, Troubleshooting, and Maintenance	16
5.	**Heating Systems** **a.** Heating Theory and Types **b.** Combustion Air **c.** Vents and Chimneys **d.** Equipment Sizing **e.** Heating Equipment **f.** Equipment Installation **g.** System Operation, Troubleshooting, and Maintenance **h.** Hydronics and Hydronic Piping	10
6.	**Safety** **a.** Responsibility for Providing Personal Protective Equipment to Employees **b.** Safety Training Requirements **c.** Adequate Ventilation for Employees **d.** First Aid Kit Requirements **e.** Use of Personal Protective Equipment **f.** Material Safety Data Sheets (MSDS) **g.** Requirements for Work Around Toxic Materials **h.** Fall Protection **i.** Lockout/Tagout Procedures **j.** Ladders **k.** Scaffolds	3

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- *International Fuel Gas Code*, 2018 edition, International Code Council, 5203 Leesburg Pike, Suite 600, Falls Church, VA 22041, (800) 786-4452, www.iccsafe.org, with Oklahoma Revisions

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- *Modern Refrigeration and Air Conditioning*, Althouse, Turnquist, Bracciano, 20th or 21st edition, Goodheart-Willcox, www.g-w.com ***OR***
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REFRIGERATION CONTRACTOR

SCOPE OF WORK

Tests a candidate's knowledge of the operation, installation, maintenance, repair, fabrication, alteration or extension of refrigeration systems; including electrical components, piping, refrigerants, and refrigeration components.

# of Questions	Passing %	Passing (Raw)	Time Allowed
80	70	56	210 minutes

	Topic Information	# of Items
1.	**Electrical Knowledge and Controls** **a.** General Electrical Theory and Knowledge **b.** Motors **c.** A/C and D/C Circuits **d.** Meters **e.** Controls **f.** Relays	20
2.	**Refrigerants** **a.** Refrigerant Types **b.** Refrigerant Systems **c.** Refrigerant Theory	10
3.	**Piping** **a.** Piping Supports **b.** Piping Materials and Sizes **c.** Piping Pressure Tests	5
4.	**Refrigeration Equipment and Components** **a.** Valves **b.** Compressors **c.** Condensers **d.** Evaporators **e.** Receivers **f.** Accumulators **g.** Expansion Devices **h.** Dryers	20
5.	**Refrigeration Systems Operations** **a.** Systems Troubleshooting **b.** Systems Operations **c.** System Installation, Maintenance, and Repair	20
6.	**Safety** **a.** Safety Training Requirements **b.** Ventilation Requirements **c.** First Aid Kit Requirements **d.** Use of Personal Protective Equipment **e.** Material Safety Data Sheets (MSDS) **f.** Requirements for Work Around Toxic Materials **g.** Lockout/Tagout Procedures **h.** Ladders	5

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REFRIGERATION JOURNEYMAN

SCOPE OF WORK

Tests a candidate's knowledge of the operation, installation, maintenance, repair, fabrication, alteration or extension of refrigeration systems; including electrical components, piping, refrigerants, and refrigeration components while employed by a Refrigeration Contractor.

# of Questions	Passing %	Passing (Raw)	Time Allowed
60	70	42	150 minutes

	Topic Information	# of Items
1.	**Electrical Knowledge and Controls** **a.** General Electrical Theory and Knowledge **b.** Motors **c.** A/C and D/C Circuits **d.** Meters **e.** Controls **f.** Relays	15
2.	**Refrigerants** **a.** Refrigerant Types **b.** Refrigerant Systems **c.** Refrigerant Theory	5
3.	**Piping** **a.** Piping Supports **b.** Piping Materials and Sizes **c.** Piping Pressure Tests	5
4.	**Refrigeration Equipment and Components** **a.** Valves **b.** Compressors **c.** Condensers **d.** Evaporators **e.** Receivers **f.** Accumulators **g.** Expansion Devices **h.** Dryers	17
5.	**Refrigeration Systems Operations** **a.** Systems Troubleshooting **b.** Systems Operations **c.** System Installation, Maintenance, and Repair	15
6.	**Safety** **a.** Safety Training Requirements **b.** Ventilation Requirements **c.** First Aid Kit Requirements **d.** Use of Personal Protective Equipment **e.** Material Safety Data Sheets (MSDS) **f.** Requirements for Work Around Toxic Materials **g.** Lockout/Tagout Procedures **h.** Ladders	3

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  Refrigeration & Air Conditioning Technology, Fifth Edition, 2005 Delmar Publishing/Thomson Learning,

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LIMITED RESIDENTIAL JOURNEYMAN (MECHANICAL)

SCOPE OF WORK

A limited residential journeyman license entitles the licensee to install complete new systems for detached one or two family dwellings and multiple single-family dwellings (townhouses) not more than three stories in height with a separate means of egress. Installations shall include 5-ton or less cooling systems and 150,000 Btu/h or less heating systems and related accessories such as humidifiers, filtering systems, kitchen vent hoods, exhaust fans and clothes dryer vent exhausts for such dwellings. Such installations shall not include any fuel gas piping, welding, soldering, brazing or final connection of refrigerant lines or final connection of any electrical wiring permitted to be installed in accordance with Oklahoma statutes.

# of Questions	Passing %	Passing (Raw)	Time Allowed
40	70	28	100 minutes

Topic Information		# of Items
1.	Duct Systems	10
2.	Vents	4
3.	Insulation	3
4.	Clothes Dryer	3
5.	Range Hoods	1
6.	Clearances	3
7.	Access	4
8.	Appliance Installation	1
9.	Restroom Exhaust Systems	1
10.	Combustion Air	3
11.	Piping	1
12.	General Installation	3
13.	SMACNA Symbols	3

REFERENCE LIST

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This examination is OPEN BOOK.
The following reference materials are allowed in the examination center:

- *International Residential Code for One-and Two-Family Dwellings*, 2018 edition, International Code Council, 5203 Leesburg Pike, Suite 600, Falls Church, VA 22041, (800) 786-4452, www.iccsafe.org, with Oklahoma Revisions found at http://ok.gov/oubcc/Codes_&_Rules/Adopted_Building_Codes

- *Oklahoma Mechanical Industry Regulations*, Oklahoma Administrative Code, Title 158, Chapter 50, Oklahoma Construction Industries Board, 2401 NW 23rd Street, Suite 2F, Oklahoma City, OK 73107, www.ok.gov/cib

- *SMACNA Symbols Sheet*, located under testing information, www.ok.gov/cib

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LIMITED RESIDENTIAL INSTALLER

SCOPE OF WORK

A limited residential installer license entitles the licensee to install complete new systems in new construction for detached one or two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories in height with a separate means of egress. Installations shall include 5-ton or less cooling systems and 150,000 Btu/h or less heating systems and related accessories such as humidifiers, filtering systems, kitchen vent hoods, exhaust fans and clothes dryer vent exhausts for such dwellings. Such installations **shall not** include any fuel gas piping, welding, soldering, brazing or final connection of refrigerant lines or final connection of any electrical wiring permitted to be installed in accordance with Oklahoma statutes.

# of Questions	Passing %	Passing (Raw)	Time Allowed
30	70	21	75

Topic Information		# of Items
1.	Duct Systems	9
2.	Vents	2
3.	Insulation	2
4.	Clothes Dryer	2
5.	Range Hoods	1
6.	Clearances	2
7.	Access	3
8.	Appliance Installation	1
9.	Restroom Exhaust Systems	1
10.	Combustion Air	2
11.	Piping	1
12.	General Installation	2
13.	SMACNA Symbols	2

REFERENCE LIST

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- *SMACNA Symbols Sheet*, located under testing information, www.ok.gov/cib

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PLUMBING BUSINESS AND LAW

# of Questions	Passing %	Passing (Raw)	Time Allowed
50	75	37	120 minutes

Topic Information		# of Items
1.	Bidding and Estimating a. General Estimating b. Bid	10

2.	**Project Management and Supervision** **a.** General Project Oversight **b.** Oversee Budget **c.** Oversee Quality Control **d.** Oversee Materials Control **e.** Manage Jobsite Safety **f.** Schedule **g.** Potentially Hazardous Materials **h.** Environmental Protection **i.** Submittals and Reports **j.** Ethics **k.** Liens	7
3.	**Contracts** **a.** Terminology **b.** Required Elements/Components **c.** Contract Types **d.** Change Orders **e.** Standardized Documents **f.** Interpretation **g.** Warranties **h.** Documents/Inclusions **i.** Other Obligations	5
4.	**Financial** **a.** Business Organization Characteristics, Advantages, and Disadvantages **b.** Business Start-up **c.** Accounting Method **d.** Cash Flow Terminology **e.** Accounts Receivable **f.** Accounts Payable **g.** Balance Sheet **h.** Income Statement **i.** Taxes on Company Income **j.** Obtaining Financing **k.** Checking Account **l.** Financial Ratios	8
5.	**Labor and Personnel** **a.** ADA **b.** Labor Standards **c.** Requirements for Non-citizens and/or Non-residents **d.** Workers' Compensation **e.** Federal or State OSHA **f.** New Hires **g.** Personnel Record Keeping **h.** Other Requirements	5
6.	**Risk Management** **a.** Insurance **b.** Bonds	4
7.	**Payroll and Payroll Taxes** **a.** Taxes **b.** Forms and Due Dates	5
8.	**Licensing Requirements** **a.** Required Insurance/Bonds **b.** Renewal	6

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- *Oklahoma Plumbing License Law of 1955*, Oklahoma Statutes, Title 59, Chapter 27, Oklahoma Construction Industries Board, 2401 N.W. 23rd Street, Suite 2F, Oklahoma City, OK 73107, www.ok.gov/cib
- *Oklahoma Plumbing Industry Regulations*, Oklahoma Administrative Code, Title 158, Chapter 30, Oklahoma Construction Industries Board, 2401 N.W. 23rd Street, Suite 2F, Oklahoma City, OK 73107, www.ok.gov/cib
- *Oklahoma Fine Schedule of the Construction Industries Board*, Oklahoma Administrative Code, Title 158, Chapter 10, Oklahoma Construction Industries Board, 2401 N.W. 23rd Street, Suite 2F, Oklahoma City, OK 73107, www.ok.gov/cib
- *Oklahoma Lien Law,* Oklahoma Statutes, Title 42, Chapter 3, Oklahoma Construction Industries Board, 2401 N.W. 23rd Street, Suite 2F, Oklahoma City, OK 73107, www.ok.gov/cib
- *NASCLA Contractors Guide to Business, Law and Project Management*, Basic 14th Edition, National Association of State Contractors Licensing Agencies (NASCLA), Telephone: (623) 587-9354, www.nascla.org
  Oklahoma Workers' Compensation Act, Oklahoma Statutes, Title 85A, Chapter 1, Oklahoma Construction Industries Board, 2401 N.W. 23rd Street, Suite 2F, Oklahoma City, OK 73107, www.ok.gov/cib
  OR
  Oklahoma Workers' Compensation Act Statutory Excerpts, Oklahoma Statutes, Title 85A, Chapter 1, Oklahoma Construction Industries Board, 2401 N.W. 23rd Street, Suite 2F, Oklahoma City, OK 73107, www.ok.gov/cib

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PLUMBING CONTRACTOR AND NATURAL GAS

SCOPE OF WORK

Installation, repair and maintenance or extension of any plumbing system, including sanitary drainage waste and vents, water supply, plumbing fixtures and roof drains and also install, maintain, or repair gas piping, appliances, vents, flues, tanks and other related appurtenances in a supervised environment.

# of Questions	Passing %	Passing (Raw)	Time Allowed
85	75	64	180 minutes

	Topic Information	# of Items
1.	**General Plumbing Knowledge and Regulations** **a.** Head Pressure **b.** Pipe Joints **c.** Solvent Welded Pipe Joints **d.** Calculations of Area and Volume **e.** Calculations of Water Supply Friction Loss **f.** Permits and Inspections **g.** Job Costs **h.** Notches and Bore Holes in Structural Members **i.** Fire Integrity **j.** Pipe Offsets Test Systems **k.** Condensate Disposal Trenching, Excavation, and Backfill **l.** Fitting Identification	10
2.	**Piping, Valves, and Control Valves** **a.** PVC Piping and Connections **b.** CPVC Piping and Connections **c.** Galvanized Piping and Connections **d.** Copper Tubing and Connections **e.** Copper Piping and Connections **f.** Polyethylene Piping and Connections **g.** PEX Piping and Connections **h.** Underground Piping and Connections **i.** Cast Iron Piping and Connections **j.** Steel Piping and Connections **k.** Connecting Dissimilar Materials **l.** Valves and Control Valves	8
3.	**Fixtures and Equipment** **a.** Identify Minimum Plumbing Needs for Structures/Facilities **b.** Install Fixtures and Associated Equipment	8
4.	**Water Supply** **a.** Water Supply and Distribution Lines **b.** Protection of Potable Water Supply **c.** Backflow	10
5.	**Drains and Sewers** **a.** Drain and Sewer Pipe **b.** Building Sewers **c.** Sewer and Drain Cleanouts **d.** Sewage Ejectors and Sump Pumps **e.** Health Care Plumbing **f.** Drain and Waste Piping **g.** Storm Drainage	10
6.	**Vents** **a.** Vent Installation	13
	b. Developed Length	
7.	**Traps, Interceptors, Indirect, and Special Waste** **a.** Traps **b.** Interceptors and Separators **c.** Indirect and Special Waste	5
8.	**Isometric Analysis** **a.** Isometric Drawings	7
9.	**Fuel Gas** **a.** Gas Distribution Pipe Sizing **b.** Gas Pressure Regulators **c.** Hangers and Supports **d.** Direction Changes **e.** Concealed Locations **f.** Joints and Connections **g.** Valves **h.** Location of Outlets **i.** Drip Leg and Sediment Traps **j.** Water Heaters and Other Appliances **k.** Confined Spaces **l.** Combustion Air **m.** Chimneys and Vents **n.** Permits and Inspections for Gas **o.** Cost Estimates for Gas **p.** Outdoor Gas Supply Piping **q.** Testing and Inspection of Gas Systems **r.** Pipe Material Requirements	10
10.	**Safety** **a.** Responsibility for Providing Personal Protective Equipment **b.** Excavation Safety **c.** Employee Protection in Trenches and Excavations **d.** Safety Training Requirements **e.** Adequate Ventilation for Employees **f.** First Aid Kit Requirements **g.** Use of Personal Protective Equipment **h.** Signs, Signals, and Barricades As Required **i.** Tools and Equipment Requirements **j.** Ladder Use in Accordance with Requirements **k.** Workplace Illumination **l.** Scaffold Use in Accordance with Requirements **m.** Requirements for Work Around Toxic Materials **n.** Appropriate Material Cleanup and Disposal **o.** Material Safety Data Sheets (MSDS) **p.** Handling and Storing Materials **q.** Fall Protection	4

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- *International Fuel Gas Code*, 2018 edition, International Code Council, 5203 Leesburg Pike, Suite 600, Falls Church, VA 22041, (800) 786-4452, www.iccsafe.org, with Oklahoma Revisions http://ok.gov/oubcc/Codes_&_Rules/Adopted_Building_Codes/
- *Mathematics for Plumbers and Pipefitters*, Lee Smith, 8th Edition, 2013, www.cengage.com
- *Code of Federal Regulations - 29 CFR Part 1926 (OSHA)*, with latest available amendments, *Candidates can access the Government website with this link* https://www.osha.gov/laws-regs/regulations/standardnumber/1926

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PLUMBING JOURNEYMAN AND NATURAL GAS

SCOPE OF WORK

Installation, repair and maintenance or extension of any plumbing system, including sanitary drainage waste and vents, water supply, plumbing fixtures and roof drains and also install, maintain, or repair gas piping, appliances, vents, flues, tanks and other related appurtenances in a supervised environment.

# of Questions	Passing %	Passing (Raw)	Time Allowed
85	75	64	180 minutes

Topic Information	# of Items
1. **General Plumbing Knowledge and Regulations** **a.** Head Pressure **b.** Pipe Joints **c.** Solvent Welded Pipe Joints **d.** Calculations of Area and Volume **e.** Calculations of Water Supply Friction Loss **f.** Permits and Inspections **g.** Job Costs **h.** Notches and Bore Holes in Structural Members **i.** Fire Integrity **j.** Pipe Offsets Test Systems **k.** Condensate Disposal Trenching, Excavation, and Backfill **l.** Fitting Identification	10
2. **Piping, Valves, and Control Valves** **a.** PVC Piping and Connections **b.** CPVC Piping and Connections **c.** Galvanized Piping and Connections **d.** Copper Tubing and Connections **e.** Copper Piping and Connections **f.** Polyethylene Piping Connections **g.** PEX Piping and Connections **h.** Underground Piping and Connections **i.** Cast Iron Piping and Connections **j.** Steel Piping and Connections **k.** Connecting Dissimilar Materials **l.** Valves and Control Valves	8
3. **Fixtures and Equipment** **a.** Identify Minimum Plumbing Needs for Structures/Facilities **b.** Install Fixtures and Associated Equipment	8
4. **Water Supply** **a.** Water Supply and Distribution Lines **b.** Protection of Potable Water Supply **c.** Backflow	10
5. **Drains and Sewers** **a.** Drain and Sewer Pipe **b.** Building Sewers **c.** Sewer and Drain Cleanouts **d.** Sewage Ejectors and Sump Pumps **e.** Health Care Plumbing **f.** Drain and Waste Piping **g.** Storm Drainage	10
6. **Vents** **a.** Vent Installation **a.** Developed Length	13
7. **Traps, Interceptors, Indirect, and Special Waste** **a.** Traps **a.** Interceptors and Separators **b.** Indirect and Special Waste	5
8. **Isometric Analysis** **a.** Isometric Drawings	7
9. **Fuel Gas** **a.** Gas Distribution Pipe Sizing **b.** Gas Pressure Regulators **c.** Hangers and Supports **d.** Direction Changes **e.** Concealed Locations **f.** Joints and Connections **g.** Valves **h.** Location of Outlets **i.** Drip Leg and Sediment Traps	10

	j. Water Heaters and Other Appliances **k.** Confined Spaces **l.** Combustion Air **m.** Chimneys and Vents **n.** Permits and Inspections for Gas **o.** Cost Estimates for Gas **p.** Outdoor Gas Supply Piping **q.** Testing and Inspection of Gas Systems **r.** Pipe Material Requirements	
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RESIDENTIAL JOURNEYMAN PLUMBING AND NATURAL GAS

85 Scored Items - 180 minutes - 75% Correct to Pass

Topic	Information	# of Items
1.	**General Plumbing Knowledge and Regulations** **a.** Calculate Area and Volume **b.** General Code Requirements **c.** Plumbing Definitions **d.** Notches and Holes in Structural Members **e.** Test Systems **f.** Water Column **g.** Pipe Offsets	10
2.	**Piping, Valves, and Control Valves** **a.** Piping Connections **b.** Cast Iron Piping **c.** Copper Piping and Tubing **d.** Steel Piping **e.** PVC, CPVC, Plastic and PEX Piping **f.** Valves	8
3.	**Fixtures and Equipment** **a.** Fixture Installation **b.** Install Water Heaters **c.** Requirements for Fixtures	8
4.	**Water Supply** **a.** Water Supply and Distribution Lines **b.** Protection of Potable Water Supply **c.** Backflow	10

5.	**Drains and Sewers** **a.** Drain and Sewer Pipe **b.** Building Sewers **c.** Sewer and Drain Cleanouts **d.** DFUs **e.** Drain and Water Piping	10
6.	**Vents** **a.** Vent Installation **b.** Wet Venting	13
7.	**Traps, Interceptors, Indirect, and Special Waste** **a.** Ejector Pumps **b.** Indirect Waste **c.** Traps	5
8.	**Isometric Analysis** **a.** Isometric Drawings	7
9.	**Fuel Gas** **a.** Gas Piping Conduit **b.** General Gas Piping and Valves **c.** Piping Supports and Hangars **d.** Pipe Sizing **e.** Testing **f.** Installaion and Joining Gas Pipe **g.** Threads	10
10.	**Safety** **a.** Construction Activitites **b.** Ladders **c.** Fall Arrest Systems	4

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RESIDENTIAL CONTRACTOR PLUMBING AND NATURAL GAS

85 Scored Items - 180 minutes - 75% Correct to Pass

Topic Information		# of Items
1.	**General Plumbing Knowledge and Regulations** **h.** Calculate Area and Volume **i.** General Code Requirements **j.** Plumbing Definitions **k.** Notches and Holes in Structural Members **l.** Test Systems **m.** Water Column **n.** Pipe Offsets	10
2.	**Piping, Valves, and Control Valves** **g.** Piping Connections **h.** Cast Iron Piping **i.** Copper Piping and Tubing **j.** Steel Piping **k.** PVC, CPVC, Plastic and PEX Piping **l.** Valves	8
3.	**Fixtures and Equipment** **d.** Fixture Installation **e.** Install Water Heaters **f.** Requirements for Fixtures	8
4.	**Water Supply** **d.** Water Supply and Distribution Lines **e.** Protection of Potable Water Supply **f.** Backflow	10
5.	**Drains and Sewers** **f.** Drain and Sewer Pipe **g.** Building Sewers	10

	h. Sewer and Drain Cleanouts **i.** DFUs **j.** Drain and Water Piping	
6.	**Vents** **c.** Vent Installation **d.** Wet Venting	13
7.	**Traps, Interceptors, Indirect, and Special Waste** **d.** Ejector Pumps **e.** Indirect Waste **f.** Traps	5
8.	**Isometric Analysis** **b.** Isometric Drawings	7
9.	**Fuel Gas** **h.** Gas Piping Conduit **i.** General Gas Piping and Valves **j.** Piping Supports and Hangars **k.** Pipe Sizing **l.** Testing **m.** Installaion and Joining Gas Pipe **n.** Threads	10
10.	**Safety** **d.** Construction Activitites **e.** Ladders **f.** Fall Arrest Systems	4

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ROOFING BUSINESS AND LAW

# of Questions	Passing %	Passing (Raw)	Time Allowed
50	70	35	120 minutes

Topic Information		# of Items
1.	**Bidding and Estimating** **a.** General Estimating **b.** Bid	10
2.	**Project Management and Supervision** **a.** General Project Oversight **b.** Oversee Budget **c.** Oversee Quality Control **d.** Oversee Materials Control **e.** Manage Jobsite Safety **f.** Schedule **g.** Potentially Hazardous Materials **h.** Environmental Protection **i.** Submittals and Reports **j.** Ethics **k.** Liens	7
3.	**Contracts** **a.** Terminology **b.** Required Elements/Components **c.** Contract Types **d.** Change Orders **e.** Standardized Documents **f.** Interpretation **g.** Warranties **h.** Documents/Inclusions **i.** Other Obligations	5
4.	**Financial** **a.** Business Organization Characteristics, Advantages, and Disadvantages **b.** Business Start-up **c.** Accounting Method	8

	d. Cash Flow Terminology **e.** Accounts Receivable **f.** Accounts Payable **g.** Balance Sheet **h.** Income Statement **i.** Taxes on Company Income **j.** Obtaining Financing **k.** Checking Account **l.** Financial Ratios	
5.	**Labor and Personnel** **a.** ADA **b.** Labor Standards **c.** Requirements for Non-citizens and/or Non-residents **d.** Workers' Compensation **e.** Federal or State OSHA **f.** New Hires **g.** Personnel Record Keeping **h.** Other Requirements	5
6.	**Risk Management** **a.** Insurance **b.** Bonds	4
7.	**Payroll and Payroll Taxes** **a.** Taxes **b.** Forms and Due Dates	5
8.	**Licensing Requirements** **a.** Required Insurance/Bonds **b.** Renewal	6

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- Oklahoma Roofing Contractor Registration Act, Oklahoma Statutes, Title 59, Section 1151, *et seq.*, Oklahoma Construction Industries Board, 2401 N.W. 23rd Street, Suite 2F, Oklahoma City, OK 73107, www.ok.gov/cib
- Oklahoma Roofing Contractor Regulations, Oklahoma Administrative Code, Title 158, Chapter 85, Oklahoma Construction Industries Board, 2401 N.W. 23rd Street, Suite 2F, Oklahoma City, OK 73107, www.ok.gov/cib
- Oklahoma Fine Schedule of the Construction Industries Board, Oklahoma Administrative Code, Title 158, Chapter 10, Oklahoma Construction Industries Board, 2401 N.W. 23rd Street, Suite 2F, Oklahoma City, OK 73107, www.ok.gov/cib
- Oklahoma Workers' Compensation Act, Oklahoma Statutes, Title 85A, Chapter 1, Oklahoma Construction Industries Board, 2401 N.W. 23rd Street, Suite 2F, Oklahoma City, OK 73107, www.ok.gov/cib
  OR
  Oklahoma Workers' Compensation Act Statutory Excerpts, Oklahoma Statutes, Title 85A, Chapter 1, Oklahoma Construction Industries Board, 2401 N.W. 23rd Street, Suite 2F, Oklahoma City, OK 73107, www.ok.gov/cib
- Oklahoma Lien Law, Oklahoma Statutes, Title 42, Chapter 3, Oklahoma Construction Industries Board, 2401 N.W. 23rd Street, Suite 2F, Oklahoma City, OK 73107, www.ok.gov/cib
- *NASCLA Contractors Guide to Business, Law and Project Management*, Basic 14th Edition, National Association of State Contractors Licensing Agencies (NASCLA), Telephone: (623) 587-9354, www.nascla.org

Candidates are responsible for bringing their own references to the examination center. Reference materials may be highlighted, underlined, and/or indexed prior to the examination session. References may not be written in prior to or during the examination session. Any candidate caught writing in the references during the examination will have the references confiscated and will be reported to the department. Furthermore, candidates are not permitted to bring in any additional papers with their approved references. Any additional materials will be removed from the references and confiscated. References may be tabbed/indexed with permanent tabs only. Temporary tabs, such as Post-It notes, are not allowed and must be removed from the reference before the exam will begin. If you download a reference from the Internet, it must be spiral bound or hole-punched and placed in a binder or stapled in the left-hand corner.

ROOFING CONTRACTOR COMMERCIAL ENDORSEMENT

SCOPE OF WORK

A commercial roofing contractor's work includes, but is not limited to, installation, renovation, remodeling, reroofing, reconstructing, repair, maintenance, improvement, alteration, and waterproofing of building roofs using a variety of materials, including shingles, asphalt, and metal. Commercial roofing contractors supervise and manage activities or personnel, supply material, and solicit commercial roofing contracts. A commercial roofing contractor may operate as an individual, firm, partnership, or corporation installing or repairing roofs on residential, commercial and industrial buildings.

# of Questions	Passing %	Passing (Raw)	Time Allowed
50	70	35	150 minutes

Topic Information	# of Items

1.	**General Roofing Knowledge**	5
2.	**Low Slope Roofing**	15
3.	**Architectural Metal Roofing Systems and Sheet Metal Flashing**	9
4.	**Moisture and Energy Control**	6
5.	**Repairs and Reroofing**	8
6.	**Safety**	7

REFERENCE LIST

The reference materials listed below were used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. Except for Code books, later editions of references are allowed in the test area. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

Candidates may use a silent, non-printing, non-programmable calculator in the examination center. Candidates will also be provided with a magnifying glass upon request.

This examination is OPEN BOOK.

The following reference materials are allowed in the examination center:

- *Architectural Sheet Metal Manual*, 2012, Sheet Metal and Air Conditioning Contractors' National Association, Inc. (SMACNA), www.smacna.org/store
- *International Building Code*, 2018, International Code Council, (800) 786-4452, www.iccsafe.org with Oklahoma Revisions http://ok.gov/oubcc/Codes_&_Rules/Adopted_Building_Codes/
- *NRCA Roofing Manual: Membrane Roofing Systems*, 2023, The National Roofing Contractors Association, (866) 275-6722, www.nrca.net
- *NRCA Roofing Manual: Metal Panel and SPF Roof Systems, 2020, The National Roofing Contractors Association, (847) 299-9070, www.nrca.net*
- *NRCA Roofing Manual: Steep Slope Roof Systems*, 2021, The National Roofing Contractors Association, (847) 299-9070, www.nrca.net
- *NRCA Roofing Manual: Architectural Metal Flashing Condensation and Air Leakage Control, and Reroofing*, 2022, The National Roofing Contractors Association, (847) 299-9070, www.nrca.net
- *Code of Federal Regulations - 29 CFR Part 1926 (OSHA)*, with latest available amendments, *Candidates can access the Government website with this link* https://www.osha.gov/laws-regs/regulations/standardnumber/1926

  Hard copy can be purchased from Mancomm.com. https://mancomm.com/29-cfr-1926-osha-construction-industry-regulations-standards/. Amazon and other retailers sell the Mancomm OSHA publications.
  OR
  Code of Federal Regulations - 29 CFR Part 1926 Selections by PSI, with latest available amendments, 866-589-3088, http://www.psionlinestore.com

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