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STATE OF NEW MEXICO

JOURNEYMAN EXAMINATIONS CANDIDATE INFORMATION BULLETIN

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

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EXAMINATIONS BY PSI

This Candidate Information Bulletin provides you with information about the approval and examination process for journeyman certification in the State of New Mexico.

Candidates must be pre approved to take any examination. Please refer to public.psiexams.com to view our *Frequently Asked Questions* and to download instructional forms and applications. If you have any eligibility questions, please call (877) 663-9267.

Note: once you become eligible you must test within 6 months of the date of eligibility. If you do not test within 6 months you will need to reapply with the Division.

The Construction Industries Division of The New Mexico Regulation and Licensing Department (CID) has contracted with PSI to conduct its examination approval process and examination testing. PSI provides examinations through a network of computer examination centers in New Mexico 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

In order to schedule for an examination, you must be preapproved.

Once you receive your approval, you will be responsible for contacting PSI to schedule an appointment to take an examination and make examination payment arrangements. The examination fee is valid for 1 year from the date PSI receives the fee.

You may not take the same examination more than twice within a 30-day period. If you have two fails within a 30-day period, you must wait 30 days from your 1st attempt, before you can test again.

Passing scores are valid for 1 year from the date of your examination.

INTERNET REGISTRATION

For the fastest and most convenient examination scheduling process, PSI recommends that you register for your examinations using the Internet. You register online by accessing PSI's registration website at https://test-takers.psiexams.com/nmcon. Internet registration is available 24 hours a day.

Log onto PSI's website and select Sign in / Create Account. Select Create Account. You are now ready to pay and schedule for the exam. Enter your zip code and a list of the testing sites closest to you will appear. Once you select the desired test site, available dates will appear. If you have problems, contact PSI at 855-539-0708 for help.

TELEPHONE REGISTRATION

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

PSI registrars are available Monday through Friday between 5:30 am and 8:00 pm, and Saturday-Sunday between 7:00 am and 3:30 pm, Mountain Time.

CANCELING AN EXAMINATION APPOINTMENT

You may cancel and reschedule an examination appointment without forfeiting your fee if your cancellation notice is received 2 days before the scheduled examination date. For example, for a Monday appointment, the cancellation notice would need to be received on the previous Saturday. You may call PSI at (800) 733-9267 or use the PSI Website.

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

MISSED APPOINTMENT OR LATE CANCELLATION

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

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

EXAM ACCOMMODATIONS

All 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 (800) 733-9267. Every effort will be made to reschedule your examination at a convenient time as soon as possible.

Examination Fees

The fee is for <u>each</u> examination, whether you are taking the examination for the first time or repeating. **EXAMINATION FEES ARE NOT REFUNDABLE OR TRANSFERABLE.**

Code	Examination Name	Fee
BO1	Journeyman Boiler Operator	\$68.88
BO2	Journeyman Boiler Operator	\$68.88
	Exam Combination Fee	\$137.76
EL-1J	Journeyman Electrical Distribution Systems including Transmission Lines	\$68.88
ER-1J	Journeyman Residential Electrical Wiring (Part 1) Written	\$68.88
ER-1J	Journeyman Residential Electrical Wiring (Part 2) Written	\$68.88
	Residential Journeyman Electrician Practical	\$68.88
	Exam Combination Fee	\$206.64
ES-1J	Journeyman Electrical Signs and Outline Lighting	\$68.88
ES-2J	Journeyman Cathodic Protection, and Lightning Protection Systems	\$68.88
ES-3J	Journeyman Low Voltage Special Systems (Under 50 Volts)	\$68.88
ES-7J	Journeyman Telephone Communication Systems and Telephone Interconnect	\$68.88
ES-10J	Journeyman Water Well Pump Installer	\$68.88
ES-10RJ	Journeyman Residential Water Well Pump Installer	\$68.88
EE-98J	Journeyman Residential and Commercial Electrical (Part 1) Written	\$68.88
EE-98J	Journeyman Residential and Commercial Electrical (Part 2) Written	\$68.88
	Journeyman Residential and Commercial Electrical Practical	\$68.88
	Exam Combination Fee	\$206.64
JS	Journeyman Sprinklers	\$68.88
JG	Journeyman Natural Gas Fitter Written	\$68.88
	Journeyman Natural Gas Fitter Practical	\$68.88
	Exam Combination Fee	\$137.76
JPF	Journeyman Pipe Fitter	\$68.88
JP	Journeyman Plumber Written	\$68.88
	Journeyman Plumber Practical	\$68.88
	Exam Combination Fee	\$137.76
JR	Journeyman Refrigeration	\$68.88
JSM	Journeyman Sheet Metal Written	\$68.88
	Journeyman Sheet Metal Practical	\$68.88
	Exam Combination Fee	\$137.76
MS-12J	Journeyman Fire Protection Systems	\$68.88
MS-14J	Journeyman Dry Chemical Fire Protection	\$68.88

CANDIDATES MUST BE PRE-APPROVED TO TAKE ANY EXAMINATION. Go to www.public.psiexams.com to get the application forms.

EXAMINATION SITE LOCATION

The New Mexico examinations are administered at the PSI examination centers in New Mexico as listed below:

Albuquerque

9550 San Mateo Blvd, N.E.

Albuquerque, NM 87113

From I-25 S - Take exit 234 NM-556/Roy Ave toward Tramway Rd. Continue onto Pan American Frontage Rd S for .2 miles Continue onto Pan American Freeway NE and go .4 miles. Turn right onto Venice Ave NE and go .3 miles. The PSI office is the last building on the left before you reach San Mateo.

Farmington

1307 E. 20th St.

Farmington, NM 87401

From E. Main St, turn RIGHT on Sullivan and turn LEFT on 20th St. We are next door to the County Republican Party office and across the street from Planned Parenthood. No Sign on the building. The sign is on the door. The office is between Zuni and Santiago streets on the south side of 20th St. If you pass Dave's Sports Shop or Fatboy's Restaurant, you've gone too far.

Las Cruces

1001 N. Solano, Suite # D Las Cruces, NM 88001

Take Highway 70 West to Solano. Turn South on Solano and go one block past Spruce to Pinon. The test center is on the Northwest corner of Solano and Pinon.

Roswell

105 E. Fifth St. Roswell, NM 88201

From US-285 S / US-70 W, turn LEFT onto E 5TH ST.

Santa Fe

4001 Office Court Drive, Suite 301

Santa Fe, NM 87507

From Albuquerque International Sunport Airport: Head East on Sunport Blvd SE. Merge onto I-25 N via the ramp to I-40/Downtown and Santa Fe. Take exit 278 and merge onto Cerrillos Road/NM-14 N.

Approximately 2.5 miles north on Cerrillos Road, turn right on Wagon Road. Turn right on Office Court Drive into the office park.

From Espanola, NM and North Cities: Head Southeast on East Paseo De Onate/US-285S/US-84S (toward Calle Espinosa). Continue on Sandia Drive. Slight right at South Riverside Drive/US-285S/US-84S. Turn right on Cerrillos Road. Approximately 5 miles on Cerrillos Road, turn left on Wagon Road. Turn right on Office Court Drive into the office park.

Colorado Examination Site

The following site will offer the New Mexico examinations.

Durango

799 East 3rd Street, Suite 3

Durango, CO 81301

From Hwy 550: Turn East on College Drive. Go straight then turn right on East 8th Avenue. Follow until East 3rd Street. PSI Testing Site is on the right in Suite 3.

Texas Examination Sites

The following sites will offer the New Mexico examinations.

Amarillo

4312 Teckla, Suite 500

Amarillo, TX 79109

Exit off I-40 to Western and go South one street passed the 7th traffic light to Ridgecrest and turn right. Stay on Ridgecrest until you come to the red brick office complex on the left side corner of Ridgecrest and Teckla. 4312 is the 3rd building facing Teckla. Ste 500 is the end suite on the North side of the building.

From Canyon, take Bell St exit and go North to traffic light at 45^{th} St and turn right. Turn left at the 2^{nd} traffic light to Teckla.

El Paso

The Atrium 1155 Westmoreland, Suite 110

El Paso, TX 79925

From I-10 W, take the Airways exit North. Turn right at the first light (Viscount). Turn right on Westmoreland Dr.

Lubbock

The Center 4413 82nd St., Suite 210 Lubbock, TX 79424 From S Loop 289, take the Quaker A

From S Loop 289, take the Quaker Ave exit and go South. Turn right on $82^{\rm nd}$ St.

Midland

Westwood Village Shopping Center 4200 West Illinois Avenue, Suite 200

Midland, TX 79703

From I-20, take Midkiff Road exit. Go North on Midkiff Road. Take a left on Illinois Ave. Go .8 miles and turn right into Chinese Kitchen's parking lot at 4200 W Illinois. Suite is at the end of the left Strip. From Business 20 (Old Hwy 80) going West, follow Front Street until Wall St Traffic light. Go 2 blocks and turn right on Midkiff. Turn left on Illinois. Go .8 miles and turn right into Chinese Kitchen's parking lot at 4200 W Illinois. Suite is at the end of the left Strip. From North Hwy 349, Look for Loop 250 West (just before overpass). Turn right at Loop and go 2 miles to Exit Midkiff. Turn left at traffic light. Turn right at Illinois traffic signal. Turn right onto Chinese Kitchen's parking Lot at 4200 W Illinois. Suite is at the end of the left Strip.

Additionally, PSI has examination centers in many other regions across the United States. You may take the written examination at any of these locations by following the instructions on the Exam Accommodations Request Form found at the end of this bulletin.

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 signin, 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

You must provide 1 form of identification. The identification must match the name you scheduled with.

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 (not allowed for remote testing)
- US Government Issued Alien Registration Card
- Canadian Government Issued ID

Failure to bring the proper documentation invalidates your registration. You will not be able to take the examination as scheduled, and you will forfeit your examination fee.

SECURITY PROCEDURES

The following security procedures will apply during the examination:

- 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.
- Although secure storage for personal items is provided at the examination site for your convenience, PSI is not responsible for any damage, loss, or theft of any personal belongings or prohibited items brought to, stored at, or left behind at the examination site. PSI assumes no duty of care with respect to such items and makes no

representation that the secure storage provided will be effective in protecting such items. If you leave any items at the examination site after your examination and do not claim them within 30 days, they will be disposed of or donated, at PSI's sole discretion.

- 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

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 per examination, a small number of 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 be added to the 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 New Mexico Regulation and Licensing Department, 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 on the computer by clicking 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 department may re-evaluate candidates' results and adjust them accordingly. This is the only review of examination materials available to applicants.

SCORE REPORTING

Your score will be given to you immediately following completion of the theory 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 <u>pass</u>, you will immediately receive a successful notification.
 - If you <u>do not pass</u>, 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.

Your practical score report will be mailed to you within 7 business days of the test date.

DUPLICATE SCORE REPORTS

You may request a duplicate score report after your examination by emailing score-report@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.

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

B01 - Journeyman Boiler Operator

# of Questions	% Required to Pass	Time Allowed
70	75% (53 points)	185 Minutes

CONTENT OUTLINE

Subject Area	# of Items
Burners, Venting and Draft	13
Controls, Boiler Fitting and Accessories	13
Testing and Inspections	13
Applications and Theory	8
Water Treatment	8
Safety	8
Maintenance	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, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

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

This examination is OPEN BOOK.

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

- Low Pressure Boilers, Frederick M. Steingress, Daryl R. Walker, 2019, American Technical Publishers, Inc., (800) 323-3471, www.atplearning.com.
- New Mexico Boiler Rules and Regulations (NMAC 14.9.4), 2005, https://www.srca.nm.gov/nmac-home/nmactitles/, (505) 476-7913

Candidates are responsible for bringing their own references to the examination center. Reference materials must be bound, and may be highlighted, underlined, and/or indexed prior to the examination session. Reference materials containing any writing will <u>not</u> be allowed into the examination. References may not be written in 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 (loose or attached) with their approved references. Any additional materials will be removed from the references and confiscated. References may be tabbed/indexed with permanent tabs only. <u>Temporary tabs</u>, such as Post-It notes, are not allowed and must be removed from the reference before the examination begins.

B02 - Journeyman Boiler Operator

# of Questions	% Required to Pass	Time Allowed
50	75% (38 points)	185 Minutes

CONTENT OUTLINE

Subject Area	# of Items
Burners, Venting and Draft	10
Controls, Boiler Fitting and Accessories	10
Testing and Inspections	10
Application and Theory	10
Maintenance/Water Treat	6
Safety	4

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, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

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

This examination is OPEN BOOK.

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

- Low Pressure Boilers, Frederick M. Steingress, Daryl R. Walker, 2019, American Technical Publishers, Inc., (800) 323-3471, www.atplearning.com.
- High Pressure Boilers, Steingress, Frost, and Walker, 2012, 5th edition, American Technical Publishers, Inc., (800) 323-3471, www.amazon.com
- New Mexico Boiler Rules and Regulations (NMAC 14.9.4), 2005, https://www.srca.nm.gov/nmac-home/nmactitles/, (505) 476-7913

Candidates are responsible for bringing their own references to the examination center. Reference materials must be bound, and may be highlighted, underlined, and/or indexed prior to the examination session. Reference materials containing any writing will <u>not</u> be allowed into the examination. References may not be written in 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 (loose or attached) with their approved references. Any additional materials will be removed from the references and confiscated. References may be tabbed/indexed with permanent tabs only. <u>Temporary tabs</u>, such as Post-It notes, are not allowed and must be removed from the reference before the examination begins.

ER-1J Journeyman Residential Electrical Wiring Part 1 Code Examination

# of Questions	% Required to Pass	Time Allowed
40	75% (30 points)	90 minutes

CONTENT OUTLINE

Subject Area	# of Items
General Knowledge and Electrical Installation Requirements	5
Services, Feeders, and Branch Circuits	6
Overcurrent Protection	4
Grounding and Bonding	4
Conductors and Cables	6
Raceways and Boxes	4
Special Occupancies and Special Equipment, including Pools	2
Lighting and General-Use Equipment	2
New Mexico State Code	5
Low Voltage	2

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, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

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

This examination is OPEN BOOK.

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

- NFPA 70 National Electrical Code, 2020, or The National Electrical Code Handbook, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- New Mexico Electrical Code (NMAC 14.10.4), 2020, https://www.srca.nm.gov/nmac-home/nmac-titles/, (505) 476-7913

Candidates are responsible for bringing their own references to the examination center. Reference materials must be bound, and may be highlighted, underlined, and/or indexed prior to the examination session. Reference materials containing any writing will <u>not</u> be allowed into the examination. References may not be written in 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 (loose or attached) with their approved references. Any additional materials will be removed from the references and confiscated. References may be tabbed/indexed with permanent tabs only. <u>Temporary tabs</u>, such as Post-It notes, are not allowed and must be removed from the reference before the examination begins.

ER-1J Journeyman Residential Electrical Wiring Part 2 Theory Examination

# of Questions	% Required to Pass	Time Allowed
25	75% (19 points)	60 minutes

CONTENT OUTLINE

Subject Area	# of Items
General Knowledge and Electrical Installation Requirements	9
Services, Feeders, and Branch Circuits	4
Overcurrent Protection	2
Grounding and Bonding	2
Conductors and Cables	2
Raceways and Boxes	2
Special Occupancies and Special Equipment, including Pools	1
Lighting, Signs, and General Use Equipment	1
Low Voltage	2

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**, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based **only** on the edition of the Code book that is listed.

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

This examination is CLOSED BOOK.

The following reference materials <u>are not</u> allowed in the examination center:

- NFPA 70 National Electrical Code, 2020, or The National Electrical Code Handbook, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- New Mexico Electrical Code (NMAC 14.10.4), 2020, https://www.srca.nm.gov/nmac-home/nmac-titles/, (505) 476-7913
- American Electricians' Handbook, Croft, Hartwell, and Summers, 17th Edition 2021, McGraw-Hill, (800) 262-4729, shop.mcgraw-hill.com
- Ugly's Electrical References, George V. Hart, 2008, 2011, or 2014 edition, Jones and Bartlett, (800) 832-0034, www.amazon.com

Journeyman Residential Electrical Practical Examination

# of Points	% Required to Pass	Time Allowed
100	75% (75 points)	120 minutes

CONTENT OUTLINE

Subject Area	# of Points
Doorbell Project	35
Lighting Project	35
Simple Conduit Bending	20
Materials Identification	10

EE-98J Journeyman Residential and Commercial Electrical Part 1 Code Examination

# of Questions	% Required to Pass	Time Allowed
50	75% (38 points)	145 minutes

CONTENT OUTLINE

Subject Area	# of Items
General Knowledge and Electrical Installation Requirements	4
Services, Feeders, and Branch Circuits	7
Overcurrent Protection	4
Grounding and Bonding	6
Conductors and Cables	5
Raceways and Boxes	5
Hazardous Locations, Special Occupancies, and Special Equipment	4
Lighting, Signs, and General-Use Equipment	3
Motors, Transformers, and Generators	5
NM State Code	4
Low Voltage	3

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**, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based **only** on the edition of the Code book that is listed.

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

This examination is OPEN BOOK.

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

 NFPA 70 - National Electrical Code, 2020, or The National Electrical Code Handbook, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org

- New Mexico Electrical Code (NMAC 14.10.4), 2020, https://www.srca.nm.gov/nmac-home/nmac-titles/, (505) 476-7913
- National Electrical Safety Code, 2007, Institute of Electrical and Electronics Engineers, Inc., (732) 981-0060, www.ieee.org

The following reference materials <u>are not</u> allowed in the examination center:

 Lineman's and Cableman's Handbook, Shoemaker and Mack, 14th Edition, McGraw Hill, (800) 262-4729, <u>shop.mcgraw-hill.com</u>

Candidates are responsible for bringing their own references to the examination center. Reference materials must be bound, and may be highlighted, underlined, and/or indexed prior to the examination session. Reference materials containing any writing will not be allowed into the examination. References may not be written in 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 (loose or attached) 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 examination begins.

EE-98J Journeyman Residential and Commercial Electrical Part 2 Theory Examination

# of Questions	% Required to Pass	Time Allowed	
50	75% (38 points)	120 minutes	

CONTENT OUTLINE

Subject Area	# of Items
General Knowledge and Electrical Installation Requirements	18
Services, Feeders, and Branch Circuits	5
Overcurrent Protection	4
Grounding and Bonding	5
Conductors and Cables	3
Raceways and Boxes	3
Hazardous Locations, Special Occupancies, and Special Equipment	2
Lighting, Signs, and General-Use Equipment	2
Low Voltage, including Alarms	8

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**, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based **only** on the edition of the Code book that is listed.

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

This examination is CLOSED BOOK.

The following reference materials <u>are not</u> allowed in the examination center:

- NFPA 70 National Electrical Code, 2020, or The National Electrical Code Handbook, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- American Electricians' Handbook, Croft, Hartwell, and Summers, 17th Edition, 2021, McGraw-Hill, (800) 262-4729, shop.mcgraw-hill.com
- Ugly's Electrical References, George V. Hart, 2008, 2011, or 2014 edition, Jones and Bartlett, (800) 832-0034, www.amazon.com
- NFPA 72 National Fire Alarm Code, 2010, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- Cathodic Protection, John Morgan, 1987, 2nd Edition, National Association of Corrosion Engineers, (800) 797-6223, www.nace.org
- Low Voltage Wiring: Security/Fire Alarm Systems, John E. Traister and Terry Kennedy, 2002, 3rd Edition, (Some vendor descriptions identify this as a 1st edition) McGraw-Hill, (800) 262-4729, www.books.mcgraw-hill.com (Order copy for LN)
- Live Sound Reinforcement: A Comprehensive Guide to P.A. and Music Reinforcement Systems and Technology
 OR- Live Sound Reinforcement, Bestseller Edition, Scott Hunter Stark, www.amazon.com.
- Data, Voice, and Video Cabling, 3rd Edition, 2009, The Fiber Optic Association, Jim Hayes and Paul Rosenberg, www.cengage.com
- CCTV: Networking and Digital Technology, Vlado Damjanovski, 2005, 2nd Edition, Butterworth-Heinemann (Reed Publishing), (800) 545-2522, www.bh.com
- Lineman's and Cableman's Handbook, Shoemaker and Mack, 14th Edition, McGraw Hill, (800) 262-4729, <u>shop.mcgraw-hill.com</u>
- National Electrical Safety Code, 2007, Institute of Electrical and Electronics Engineers, Inc., (732) 981-0060, www.ieee.org

Journeyman Residential and Commercial Electrical Practical Examination

# of Points	% Required to Pass	Time Allowed
100	75% (75 points)	120 minutes

CONTENT OUTLINE

Subject Area	# of Points
Motor Control Project	20
Transformer Project	20
Doorbell Project	10
Lighting Project	10
Simple Conduit Bending	10
Complex Conduit Bending	20
Materials Identification	10

EL-1J Journeyman Electrical Distribution Systems, including Transmission Lines

# of Questions	% Required to Pass	Time Allowed
80	75% (60 points)	205 Minutes

CONTENT OUTLINE

Subject Area	# of Items
General Electrical Knowledge	10
Electrical Supply/Sub-Stations	8
Transformers	10
Conductors	8
Poles and Structures	6
Grounding Methods	8
Overhead	8
Underground	6
Equipment and Safety	6
Equipment over 600 Volts	10

REFERENCE LIST

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

This examination is OPEN BOOK.

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

- National Electrical Safety Code Handbook, David J. Marne, 2007, McGraw-Hill, (800) 262-4729, www.books.mcgrawhill.com
- NFPA 70 National Electrical Code, 2020, or The National Electrical Code Handbook, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- New Mexico Electrical Code (NMAC 14.10.4), 2020, https://www.srca.nm.gov/nmac-home/nmac-titles/, (505) 476-7913
- New Mexico Electrical Safety Code (NMAC 14.10.5), 2008, https://www.srca.nm.gov/nmac-home/nmac-titles/, (505) 476-7913

The following reference materials <u>are not</u> allowed in the examination center:

- American Electricians' Handbook, Croft, Hartwell, and Summers, 17th Edition, 2021, McGraw-Hill, (800) 262-4729, shop.mcgraw-hill.com
- Lineman's and Cableman's Handbook, Shoemaker and Mack, 14th Edition, McGraw Hill, (800) 262-4729, <u>shop.mcgraw-hill.com</u>

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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 (loose or attached) 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 examination begins.

ES-1J Journeyman Electrical Signs and Outline Lighting

# of Questions	% Required to Pass	Time Allowed
50	75% (38 points)	120 Minutes

CONTENT OUTLINE

Subject Area	# of Items
General Knowledge and Theory	5
Wiring and Protection	15
Wiring Methods and Material	15
Equipment For General Use	5
Special Occupancies	5
Special Equipment	5

REFERENCE LIST

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

- NFPA 70 National Electrical Code, 2020, or The National Electrical Code Handbook, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- New Mexico Electrical Code (NMAC 14.10.4), 2020, https://www.srca.nm.gov/nmac-home/nmac-titles/, (505) 476-7913

The following reference materials <u>are not</u> allowed in the examination center:

- Neon Techniques, Wayne Strattman, 2003, 4th edition, ST Publications, Inc., (800) 925-1110, www.amazon.com
- American Electricians' Handbook, Croft, Hartwell, and Summers, 17th Edition, 2021, McGraw-Hill, (800) 262-4729, shop.mcgraw-hill.com

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ES-2J Journeyman Cathodic Protection, and Lightning Protection Systems

# of Questions	% Required to Pass	Time Allowed
50	75% (38 points)	120 Minutes

CONTENT OUTLINE

Subject Area	# of Items
General Knowledge and Theory	20
National Electrical Code	10
Lightning Protection	10
Cathodic Protection	10

REFERENCE LIST

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- NFPA 70 National Electrical Code, 2020, or The National Electrical Code Handbook, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- New Mexico Electrical Code (NMAC 14.10.4), 2020, https://www.srca.nm.gov/nmac-home/nmac-titles/, (505) 476-7913
- NFPA 780 Installation of Lightning Protection Systems, 2004, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org

The following reference materials <u>are not</u> allowed in the examination center:

- American Electricians' Handbook, Croft, Hartwell, and Summers, 17th Edition, 2021, McGraw-Hill, (800) 262-4729, shop.mcgraw-hill.com
- Ugly's Electrical References, George V. Hart, 2008, 2011, or 2014 edition, Jones and Bartlett, (800) 832-0034, www.amazon.com
- Handbook of Cathodic Corrosion Protection, 3rd Edition, 1997, W. Von Baekmann, Gulf Publishing Company, (715) 529-4301, www.amazon.com

 Control of Pipeline Corrosion, 2nd Edition, 2001, National Association of Corrosion Engineers, (800) 797-6223, http://www.nace.org

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ES-3J Journeyman Low Voltage Special Systems (under 50 Volts)

# of Questions	% Required to Pass	Time Allowed
50	75% (38 points)	145 Minutes

CONTENT OUTLINE

Subject Area	# of Items
Grounding and Bonding	5
Conductors	4
Electrical Power Conditioning	2
Electrical and Electronic Knowledge	9
General Low Voltage	3
Sound and Video Systems	5
Intrusion Detection and Alarms	4
Fire Detection and Alarms	7
Computer and Data Systems	5
CCTV Systems	2
Testing Equipment	2
CATV and MATV Systems	2

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, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

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This examination is OPEN BOOK.

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

 NFPA 70 - National Electrical Code, 2020, or The National Electrical Code Handbook, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org

- NFPA 72 National Fire Alarm Code, 2010, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- New Mexico Electrical Code (NMAC 14.10.4), 2020, https://www.srca.nm.gov/nmac-home/nmac-titles/, (505) 476-7913

The following reference materials <u>are not</u> allowed in the examination center:

- Low Voltage Wiring: Security/Fire Alarm Systems, John E. Traister and Terry Kennedy, 2002, 3rd Edition, (Some vendor descriptions identify this as a 1st edition) McGraw-Hill, (800) 262-4729, www.books.mcgraw-hill.com (Order copy for LN)
- Telecommunications Wiring, Clyde Herrick, 2001, 3rd Edition, Prentice-Hall PTR, (800) 382-3419, www.prenhall.com
- Understanding and Servicing Alarm Systems, 1999, 3rd Edition, Butterworth-Heinemann (Reed Publishing), (800) 545-2522, www.bh.com
- Live Sound Reinforcement: A Comprehensive Guide to P.A. and Music Reinforcement Systems and Technology -OR-Live Sound Reinforcement, Bestseller Edition, Scott Hunter Stark, www.amazon.com
- Data, Voice, and Video Cabling, 3rd Edition, 2009, The Fiber Optic Association, Jim Hayes and Paul Rosenberg, www.cengage.com
- Antenna Toolkit, Joe Carr, 2001, 2nd edition, Butterworth-Heinemann (Reed Publishing), (800) 545-2522, www.bh.com

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ES-7J Journeyman Telephone Communication Systems and Telephone Interconnect Systems

# of Questions	% Required to Pass	Time Allowed
50	75% (38 points)	135 Minutes

CONTENT OUTLINE

Subject Area	# of Items
Grounding and Bonding	5
Conductors	5
Special Occupancies and Equipment	2
General Electrical Knowledge	5
Communication Systems	5
Outside Cabling	5
Cable Transmission and Reception	2

Poles	2
Inside Cabling	5
Network/Data	5
Switching	2
Telephones	3
Underground Cabling	4

REFERENCE LIST

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- NFPA 70 National Electrical Code, 2020, or The National Electrical Code Handbook, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- New Mexico Electrical Code (NMAC 14.10.4), 2020, https://www.srca.nm.gov/nmac-home/nmac-titles/, (505) 476-7913
- National Electrical Safety Code C2, 2007, Institute of Electrical and Electronics Engineers, Inc., (732) 981-0060, www.ieee.org

The following reference materials <u>are not</u> allowed in the examination center:

- Telecommunications Wiring, Clyde Herrick, 2001, 3rd Edition, Prentice-Hall PTR, (800) 382-3419, www.prenhall.com
- Lineman's and Cableman's Handbook, Shoemaker and Mack, 14th Edition, McGraw Hill, (800) 262-4729, <u>shop.mcgraw-hill.com</u>
- Direct Current Fundamentals, Stephen L. Herman, 2006, 7th edition, Thomson Delmar Learning, (800) 347-7707, www.delmarlearning.com
- Live Sound Reinforcement: A Comprehensive Guide to P.A. and Music Reinforcement Systems and Technology
 -OR- Live Sound Reinforcement, Bestseller Edition, Scott Hunter Stark, www.amazon.com
- Data, Voice, and Video Cabling, 3rd Edition, 2009, The Fiber Optic Association, Jim Hayes and Paul Rosenberg, www.cengage.com

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ES-10J Journeyman Water Well Pump Installer

# of Questions	% Required to Pass	Time Allowed
50	75% (38 points)	120 Minutes

CONTENT OUTLINE

Subject Area	# of Items
General Knowledge and Electrical Installation	
Requirements	8
Feeders and Branch Circuits	4
Overcurrent Protection	3
Grounding and Bonding	8
Conductors and Cables	5
Raceways and Boxes	5
Panelboards and Switchboards	5
Motors, Pumps, and Controls	6
Solar PV Systems	3
New Mexico Electrical Code	3

REFERENCE LIST

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- New Mexico Electrical Code (NMAC 14.10.4), 2020, https://www.srca.nm.gov/nmac-home/nmac-titles/, (505) 476-7913
- National Electrical Safety Code, 2007, Institute of Electrical and Electronics Engineers, Inc., (732) 981-0060, www.ieee.org

The following reference materials <u>are not</u> allowed in the examination center:

- American Electricians' Handbook, Croft, Hartwell, and Summers, 17th Edition, 2021, McGraw-Hill, (800) 262-4729, shop.mcgraw-hill.com
- Ugly's Electrical References, George V. Hart, 2008, 2011, or 2014 edition, Jones and Bartlett, (800) 832-0034, www.amazon.com

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ES-10RJ Journeyman Residential Water Well Pump Installer

# of Questions	% Required to Pass	Time Allowed
50	75% (38 points)	120 Minutes

CONTENT OUTLINE

Subject Area	# of Items
General Knowledge and Electrical Installation	
Requirements	9
Feeders and Branch Circuits	5
Overcurrent Protection	3
Grounding and Bonding	9
Conductors and Cables	5
Raceways and Boxes	5
Panelboards and Switchboards	3
Motors, Pumps, and Controls	5
Solar PV Systems	3
New Mexico Electrical Code	3

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**, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based **only** on the edition of the Code book that is listed.

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

- NFPA 70 National Electrical Code, 2020, or The National Electrical Code Handbook, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- New Mexico Electrical Code (NMAC 14.10.4), 2020, https://www.srca.nm.gov/nmac-home/nmac-titles/, (505) 476-7913

 National Electrical Safety Code, 2007, Institute of Electrical and Electronics Engineers, Inc., (732) 981-0060, www.ieee.org

The following reference materials <u>are not</u> allowed in the examination center:

- American Electricians' Handbook, Croft, Hartwell, and Summers, 17th Edition, 2021, McGraw-Hill, (800) 262-4729, shop.mcgraw-hill.com
- Ugly's Electrical References, George V. Hart, 2008, 2011, or 2014 edition, Jones and Bartlett, (800) 832-0034, www.amazon.com

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JG Journeyman Natural Gas Fitter

# of Questions	% Required to Pass	Time Allowed
70	75% (53 points)	200 minutes

CONTENT OUTLINE

Subject Area	# of Items
General Knowledge and Principles	12
Piping	17
Gas Sizing	12
Controls and Testing	5
Appliances	7
Combustion Air	7
Chimneys, Flues and Vents	7
Heating Systems	3

REFERENCE LIST

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

This examination is OPEN BOOK.

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

- Uniform Mechanical Code, 2021, International Association of Plumbing and Mechanical Officials (IAPMO), (800) 854-2766, www.amazon.com.
- Modern Refrigeration and Air Conditioning, 19th or 20th edition, The Goodheart-Willcox Company, (800) 323-0440, www.g-w.com
- IPT's Pipe Trades Handbook, Robert A. Lee, 2016, IPT Publishing and Training, Ltd., (888) 808-6763, www.iptbooks.com.
- Uniform Plumbing Code, 2021, International Association of Plumbing and Mechanical Officials (IAPMO), (800) 854-2766, www.iapmo.org.
- New Mexico Plumbing Code (NMAC 14.8.2), 2015, https://www.srca.nm.gov/nmac-home/nmac-titles/, (505) 476-4700.
- New Mexico Mechanical Code (NMAC 14.9.2), 2015, https://www.srca.nm.gov/nmac-home/nmac-titles/, 505) 476-4700.

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Journeyman Natural Gas Fitter Practical Examination

# of Points	% Required to Pass	Time Allowed
100	75% (75 points)	120 minutes

CONTENT OUTLINE

Subject Area	# of Points
Natural Gas Project	
Light burner and analyze frame	5
Derate for Altitude	10
Relight burner & make final adjustments	5
Steel Pipe Project	
Cut, ream, and thread pipe	5
Correct use of fitting/tools	5
Correct measurements of assembly	5
Correct location of fittings	5
Fitting Identification	10
Tool Identification	10
Gas Vent Project	
Correctly size vent for single appliance	10
Correctly size vent for two or more appliances	10
Polyethylene Pipe Rise Project	
Correctly assemble gas riser/P.E. pipe	5
Install test manifold	5
Test assembly	5

Brief explanation of proper installation

REFERENCE LIST

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

- New Mexico Plumbing Code (NMAC 14.8.2), 2015, https://www.srca.nm.gov/nmac-home/nmac-titles/, (505) 476-4700.
- Uniform Plumbing Code, 2021, International Association of Plumbing and Mechanical Officials (IAPMO), (800) 854-2766, www.iapmo.org.
- New Mexico Mechanical Code (NMAC 14.9.2), 2015, <u>https://www.srca.nm.gov/nmac-home/nmac-titles/</u>, 505) 476-4700.

Uniform Mechanical Code, 2021, International Association of Plumbing and Mechanical Officials (IAPMO), (800) 854-2766, www.amazon.com.

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JP Journeyman Plumber

# of Questions	% Required to Pass	Time Allowed
70	75% (53 points)	185 minutes

CONTENT OUTLINE

Subject Area	# of Items
Drainage Waste and Vents	21
Water Supply Systems	6
Backflow Prevention	6
Storm Drainage Systems	6
Plumbing Fixtures, Including Water Heaters,	
Including Accessibility	8
General Knowledge and General Regulations	10
Interceptors and Traps	4

Isometric Analysis	5
Septic and Sewer	4

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- Uniform Plumbing Code, 2021, International Association of Plumbing and Mechanical Officials (IAPMO), (800) 854-2766, www.iapmo.org.
- New Mexico Mechanical Code (NMAC 14.9.2), 2015, <u>https://www.srca.nm.gov/nmac-home/nmac-titles/</u>, 505) 476-4700.
- IPT's Pipe Trades Handbook, Robert A. Lee, 2016, IPT Publishing and Training, Ltd., (888) 808-6763, www.iptbooks.com.
- Uniform Mechanical Code, 2021, International Association of Plumbing and Mechanical Officials (IAPMO), (800) 854-2766, www.amazon.com.

The following reference materials <u>are not</u> allowed in the examination center:

- Mathematics for Plumbers and Pipefitters, Lee Smith, 8th Edition, 2013, www.cengage.com
- New Mexico Liquid Waste Disposal Regulations (NMAC 20.7.3), 2005, https://www.srca.nm.gov/nmac-home/nmac-titles/, (505) 476-7913

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Journeyman Plumber Practical Examination

# of Points	% Required to Pass	Time Allowed
100	75% (75 points)	120 minutes

CONTENT OUTLINE

Subject Area	# of Points	
Copper/PEX Water Piping Assembly	'	
Properly solder copper piping and fittings	5	
Properly assemble PEX and PEX fittings	5	
Air test assembly	10	
Tub Assembly		
Assembly of tub drain	5	
Water test of tub drain	5	
Washer Box Assembly		
Overall assembly of project	15	
Fitting Identification	10	
Tool Identification	10	
Island Vent Assembly		
Measure, cut and ream piping	10	
Correct use of fittings	10	
Drainage Pipe Project		
Measure and calculate minimum rise	5	
Set drain to minimum rise	10	

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This examination is OPEN BOOK.

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

- Uniform Plumbing Code, 2021, International Association of Plumbing and Mechanical Officials (IAPMO), (800) 854-2766, www.iapmo.org.
- Uniform Mechanical Code, 2 2021, International Association of Plumbing and Mechanical Officials (IAPMO), (800) 854-2766, www.amazon.com.

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JPF Journeyman Pipe Fitter

# of Questions	% Required to Pass	Time Allowed
50	75% (38 points)	120 minutes

CONTENT OUTLINE

Subject Area	# of Items
General Knowledge	22
Piping, Assembly and Installation	21
Pipe Welding	7

REFERENCE LIST

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

- Uniform Mechanical Code, 2021, International Association of Plumbing and Mechanical Officials (IAPMO), (800) 854-2766, www.amazon.com.
- New Mexico Plumbing Code (NMAC 14.8.2), 2015, https://www.srca.nm.gov/nmac-home/nmac-titles/, (505) 476-4700.
- IPT's Pipe Trades Handbook, Robert A. Lee, 2016, IPT Publishing and Training, Ltd., (888) 808-6763, www.iptbooks.com.
- New Mexico Mechanical Code (NMAC 14.9.2), 2015, https://www.srca.nm.gov/nmac-home/nmac-titles/, 505) 476-4700.

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JR Journeyman Refrigeration

# of Questions	% Required to Pass	Time Allowed
50	75% (38 points)	120 minutes

CONTENT OUTLINE

Subject Area	# of Items
Refrigerants and Refrigeration	10
Refrigeration - Piping, Hydronics, and Process	18
General Requirements	5
Components, Controls, and Valves	6
Tests and Inspections	6
Safety	5

REFERENCE LIST

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

- New Mexico Mechanical Code (NMAC 14.9.2), 2015, https://www.srca.nm.gov/nmac-home/nmac-titles/, 505) 476-4700.
- Modern Refrigeration and Air Conditioning, 19th or 20th edition, The Goodheart-Willcox Company, (800) 323-0440, www.g-w.com
- Uniform Mechanical Code, 2021, International Association of Plumbing and Mechanical Officials (IAPMO), (800) 854-2766, www.amazon.com.
- IPT's Pipe Trades Handbook, Robert A. Lee, 2016, IPT Publishing and Training, Ltd., (888) 808-6763, www.iptbooks.com.
- Industrial Refrigeration Handbook, W. F. Stoecker, 1998, McGraw-Hill, (800) 262-4729, www.abebooks.com
- Code of Federal Regulations 29 CFR Part 1926 (OSHA), with latest available amendments, Superintendent of Documents, PO Box 371954, Pittsburgh, PA 15250-7954, 888-293-6498, www.amazon.com

OR

Code of Federal Regulations - 29 CFR Part 1926 Selections by PSI, with latest available amendments, 866-589-3088, www.psionlinestore.com

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JS Journeyman Sprinkler

# of Questions	% Required to Pass	Time Allowed
45	75% (34 points)	120 minutes

CONTENT OUTLINE

Subject Area	# of Items
General Knowledge	9
Design	9
Materials	5
Controls and Wiring	7
Excavation	4
Pumps	3
Water Supply	4
Sprinkler Heads	4

REFERENCE LIST

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This examination is OPEN BOOK.

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

 Simplified Irrigation Design, Pete Melby, 1995, 2nd edition, John Wiley and Sons, Inc., (201) 748-6000, www.wiley.com

Candidates are responsible for bringing their own references to the examination center. Reference materials must be bound, and may be highlighted, underlined, and/or indexed prior to the examination session. Reference materials containing any writing will not be allowed into the examination. References may not be written in 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 (loose or attached) 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 examination begins.

JSM Journeyman Sheet Metal

# of Questions	% Required to Pass	Time Allowed	
70	75% (53 points)	185 minutes	

CONTENT OUTLINE

Subject Area	# of Items
Duct Fabrication	15
Duct Installation	15
Ventilation, Combustion Air, and Controls	20
General Knowledge	8
Heating and Cooling Appliances	12

REFERENCE LIST

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

- New Mexico Mechanical Code (NMAC 14.9.2), 2015, https://www.srca.nm.gov/nmac-home/nmac-titles/, 505) 476-4700.
- Modern Refrigeration and Air Conditioning, 1^{9th} or 2^{0th} edition, The Goodheart-Willcox Company, (800) 323-0440, www.g-w.com
- Uniform Mechanical Code, 2021, International Association of Plumbing and Mechanical Officials (IAPMO), (800) 854-2766, www.amazon.com.
- HVAC Duct Construction Standards, Metal and Flexible, 2005, 3rd edition, Sheet Metal and Air Conditioning Contractors' National Association, Inc., (703) 803-2980, www.amazon.com
- Sheet Metal, Leo A. Meyer, 2006, American Technical Publishers, Inc., (800) 323-3471, www.go2atp.com

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Journeyman Sheet Metal Practical Examination

# of Points	% Required to Pass	Time Allowed	
100	75% (75 points)	120 minutes	

CONTENT OUTLINE

Subject Area	# of Points	
Field Sketch Scoring		
Accurate Dimensions	15	
Correct Duct Length	20	
Sizes and Connectors	10	
Neatness	5	
Mock Up Scoring		
Duct Joint Correct Length	20	
Fittings Installed Correctly	20	
Properly Installed Connectors	5	
Overall Appearance	5	

REFERENCE LIST

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

 New Mexico Mechanical Code (NMAC 14.9.2), 2015, <u>https://www.srca.nm.gov/nmac-home/nmac-titles/</u>, 505) 476-4700.

Uniform Mechanical Code, 2021, International Association of Plumbing and Mechanical Officials (IAPMO), (800) 854-2766, www.amazon.com.

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MS-12J Journeyman Fire Protection Systems

# of Questions	% Required to Pass	Time Allowed	
50	75% (38 points)	110 Minutes	

CONTENT OUTLINE

Subject Area	# of Items
Backflow Prevention	2
Hydraulic Calculations and Design	2
Residential Systems	3
Fire pumps and Standpipes	5
Sprinkler Systems	10
Water Supply, Storage, and Distribution	4
General and Code Knowledge	10
Materials and Methods	4
Testing and Inspections (NFPA 25)	10

REFERENCE LIST

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This examination is OPEN BOOK.

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

- NFPA 13 Installation of Sprinkler Systems, 2007, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 72 National Fire Alarm Code, 2010, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 13R Sprinkler Systems for Residential Occupancies Up To and Including Four Stories in Height, 2002, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 15 Water Spray Fixed Systems for Fire Protection, 2007, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 14 Installation of Standpipe, Private Hydrant, and Hose, 2007, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 20 Standard for the Installation of Stationary Pumps for Fire Protection, 2007, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 13D Sprinklers, One- and Two-Family Dwellings and Manufactured Housing, 2002, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- International Association of Plumbing and Mechanical Officials (IAPMO), 2012, (800) 854-2766, www.iapmo.org.
- NFPA 25 Inspection, Testing, and Maintenance of Water Based Fire Protection Systems, 2002, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 24: Standard for the Installation of Private Fire Service Mains and Their Appurtenances, 2007, National

Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org

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MS-14J Journeyman Dry Chemical Fire Protection

# of Questions	% Required to Pass	Time Allowed	
50	75% (38 points)	90 Minutes	

CONTENT OUTLINE

Subject Area	# of Items
Clean Agents And Alternative Systems	17
Foam Systems	5
Wet Chemical Systems	8
Dry Chemical Systems	6
Carbon Dioxide Systems	2
Portable Fire Extinguishers	4
Commercial Kitchen Equipment	8

REFERENCE LIST

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This examination is OPEN BOOK.

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

- NFPA 72 National Fire Alarm Code, 2010, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 10 Standard for Portable Fire Extinguishers, 2007, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 11 Standard for Low-Expansion Foam, 2005, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 12A: Standard on Halon 1301 Fire Extinguishing Systems, 2009. National Fire Protection Association, 1

- Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101, www.nfpa.org
- NFPA 17 Standard for Dry Chemical Extinguishing Systems, 2009, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 17A Standard for Wet Chemical Extinguishing Systems, 2009, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 96 Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, 2008, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- Uniform Plumbing Code, 2021, International Association of Plumbing and Mechanical Officials (IAPMO), (800) 854-2766, www.iapmo.org.
- Uniform Mechanical Code, 2021, International Association of Plumbing and Mechanical Officials (IAPMO), (800) 854-2766, www.amazon.com.
- NFPA 2001: Standard for Clean Agent Fire Extinguishing Systems, 2008, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org
- NFPA 12: Standard on Carbon Dioxide Extinguishing Systems, 2008, National Fire Protection Association (NFPA), (800) 344-3555, www.nfpa.org

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