



INSPECTION • TESTING • CERTIFICATION

ISO 9001:2015 Certified

***CANDIDATE INFORMATION  
BULLETIN for CERTIFICATION EXAMINATIONS***

- ✓ **Journey Level Plumber**
- ✓ **Journey Level Steamfitter/Pipefitter**
- ✓ **Journey Level HVAC**



# Table of Contents

- I. **GENERAL INFORMATION**
  - About NITC's Certification Program
  - Examination Development
  - How to Obtain the NITC Rules and Procedures Document
  
- II. **NITC Journey Level Plumber**
  - Scope of Work
  - Examination Qualification Requirements
  - About the Examination (Content Outline)
  
- III. **NITC Journey Level Steamfitter/Pipefitter**
  - Scope of Work
  - Examination Qualification Requirements
  - About the Examination (Content Outline)
  
- IV. **NITC Journey Level HVAC**
  - Scope of Work
  - Examination Qualification Requirements
  - About the Examination (Content Outline)
  
- V. **Recertifying Your NITC Journey Level Certification**

**Important note to examination candidates:**

*The information contained in this document is important. Please read it carefully.*



## I. GENERAL INFORMATION

### ABOUT NITC CERTIFICATION PROGRAMS

For many years the certification of personnel in the skilled trades was voluntary except where required by an employer or by the local jurisdiction. However, new government and industry require that personnel document their qualifications through written examination and/or practical testing. NITC provides personnel certification which meets this need while holding to the highest standards of modern test practice.

Our certification programs are nationally recognized and is the result of years of effort by experts from the industry.

### EXAMINATION DEVELOPMENT

The first step in the development of an objective test is to identify the knowledge necessary for the certification holder. This knowledge was identified by a team of industry subject matter experts assembled by NITC. Job and Task analyses were employed to develop the examination blueprint which became the basis for the content of this examination. The passing scores were also determined by these experts using psychometrically accepted standard-setting methodology.

### HOW TO OBTAIN THE NITC RULES AND PROCEDURES DOCUMENT

The Medical Gas Installer Certification is governed by the [NITC's Rules and Procedures Manual](#). This document goes into greater detail on a number of the topics covered in this examination information bulletin. Topics covered include:

- Statement of Purpose
- About NITC
- Certifications Administered by NITC
- Scope of Examinations
- Basis of Examination Construction, Validation and Security
- Maintaining and Upgrading Examinations
- Application Procedures
- Examination Fees
- Examination Process
- Examination Scheduling for Groups
- Computer-Based Testing at PSI Centers Information
- Examination Site Information
- Examination Score
- Information Release Policy

- Issuance of Certification Cards and Wall Certificates
- Requirements for Maintaining Certification
- Correction of Material and/or Technical Errors in Examinations
- Notification to Certified Personnel and Stakeholders of Updated Certifications and New Certifications
- Recertification: (Maintenance of Certification)
- Exam Questions Challenges, Appeals Procedure, Complaints
- Guidelines for Use of Certification Mark
- NITC Policy and Guidelines for Testing Persons with Disabilities
- Proctor Responsibilities
- Conflict of Interest and Confidentiality Statements
- Reissuance of Lost Certification Cards
- NITC No-Show, Cancellation, and Refund Policy
- NITC Certification Scheme Committee

Copies of [NITC's Rules and Procedures](#) are available on the NITC website at [www.nationalitc.com](http://www.nationalitc.com) and also upon request from NITC Headquarters.

## II. NITC Journey Level Plumber

### SCOPE OF WORK: NITC Journey Level Plumber

NITC Journey Level Plumbers certification candidates are qualified individuals who can demonstrate journey level competence within their scope and will be proficient in blueprint reading, jobsite safety, and in the practical installation, repair, and service of plumbing systems. Installation, repair and service of plumbing systems includes the construction, installation, alteration, repair, service and maintenance of any new or existing system used for potable water, sewage, waste and vent, and/or gas piping in residential, commercial and industrial settings. A qualified individual may perform these tasks alone, or through the supervision of other individuals.

A Journey Level Plumber is required to have knowledge of proper plumbing terms and definitions, cross connections, back siphoning, backflow, water heaters, LP gas, storm drainage, plumbing fixtures, indirect waste, firestop protection, trade-related math and simple physics, proper sizing of waste and vent, gas, and potable water. Gas vents for appliances, proper layout, and planning and installation of plumbing systems. Qualified candidates will have a general knowledge of national, state, and local requirements and industry codes and practices.

### EXAMINATION QUALIFICATION REQUIREMENTS

Certification candidates are expected to be experienced trades professionals who have completed a UA training program or equivalent. Candidates must document a minimum of four (4) years experience in the installation of plumbing systems.

### ABOUT THE EXAMINATION

The NITC Journey Level Plumber Certification Examination is based on the **2015 or 2018 edition of the Uniform Plumbing Code** published by the International Association of Plumbing and Mechanical Officials (IAPMO).

A content outline is provided below as an aid in preparing for the Journey Level Plumber, Includes gas examination.

Official Exam References: 2018 or 2021 UPC (Uniform Plumber Code)\*

Description: Open book exam consisting of 100 multiple choice questions

Passing grade: 75% (75 correct)

Total time allowed: 2½ hours

Percent of Exam	Objective/Category
25%	General Knowledge of the Uniform Plumbing Code
25%	Sizing Drainage, Waste, and Vent Systems
25%	Sizing Water Supply and Distribution
25%	Sizing Fuel Piping

## ***PERMITTED REFERENCES***

The **2015 Uniform Plumber Code** book is allowed to be used during this examination

An NITC-approved proctor administers the multiple-choice examination. Candidates are notified of a pass or fail result in writing by NITC, the training agency, or by the association that requested the examination.

Candidates failing to achieve a passing score will be eligible for re-examination as soon as the next examination is scheduled. Candidates may re-take their examination at the NITC offices or at a PSI testing center. Re-examination fees are listed in the [Certification Examination Price List](#).

### III. NITC JOURNEY LEVEL STEAMFITTER/PIPEFITTER

#### SCOPE OF WORK: NITC JOURNEY LEVEL STEAMFITTER/PIPEFITTER

NITC Journey Level Steamfitter/Pipefitter certification candidates are qualified individuals who can demonstrate skill in fabricating, preparing, rigging and installing pipes, tubing and equipment following standard industry practices. A qualified individual may perform these tasks alone, or through the supervision of other individuals. Qualified candidates will have a general knowledge of national, state, and local requirements and industry codes and practices.

#### EXAMINATION QUALIFICATION REQUIREMENTS

Certification candidates are expected to be experienced trades professionals who have completed a UA training program or equivalent. Candidates must document a minimum of four (4) years experience in the installation of piping systems.

#### ABOUT THE EXAMINATION

The Pipefitter-Steamfitter certification examination consists of a closed book multiple-choice one hundred question written examination. Two and one half (2½) hours are allotted for this examination.

Candidates must achieve a minimum score of seventy five percent (75%) to pass. Candidates will be notified in writing by either NITC, the training agency, or the association that requested the examination of a pass or fail result. Examination scores will be divulged in writing only to the examinee, or to the appropriate source. Candidates failing to achieve a passing score will be eligible for re-examination as soon as the next examination is scheduled.

Candidates may take written examinations at the NITC offices. Re-examination requires the submittal of a new fee.

Subject matter covered in the examination is general knowledge of pipefitting-steamfitting.

<b>%</b>	<b>TOPIC</b>
30%	<i>Hydronics &amp; Science</i>
8%	<i>Air Conditioning/Refrigeration</i>
28%	<i>Piping Mathematics</i>
10%	<i>Welding</i>
6%	<i>Rigging</i>
10%	<i>Tools &amp; Safety</i>
8%	<i>Pneumatics &amp; Control</i>
<b>100%</b>	<b>TOTAL</b>

## **REFERENCE MATERIALS**

**Questions are extracted from these reference materials:**

- The Pipe Fitter's and Pipe Welder's Handbook, Thomas W. Franklin, 1976
- The Pipe Fitter's and Pipe Welder's Handbook, Thomas W. Franklin, 1986
- Pipe Trades Pocket Manual, Thomas W. Franklin, 1985
- Plumbing, Apprentice Training, Instructions Guide
- Modern Methods of Pipe Fabrication, S.D. Bowman, 1984
- Instrumentation and Control Systems Engineering Handbook, The Editors of Instrumentation Technology, 1978
- The Procedure Handbook of Arch Welding, The Lincoln Electric Co., 12<sup>th</sup> Edition
- Soldering and Brazing Manual, National Joint Steamfitter-Pipefitter Apprentice Committee, 1979
- Use and Care of Tools, National Joint Steamfitter-Pipefitter Apprentice Committee, 1983
- Rigging Manual, National Joint Steamfitter-Pipefitter Apprentice Committee, 1979
- Instruction Manual for Steamfitter-Pipefitter Journeyman & Apprentices, National Joint Steamfitter-Pipefitter Apprentice Committee, 1969 & 1976

An NITC-approved proctor will administer the multiple-choice examination at the approved testing location. Candidates are notified of a pass or fail result in writing by NITC.

Candidates failing to achieve a passing score will be eligible for re-examination as soon as the next examination is scheduled. Candidates may re-take their examination at the NITC offices or at a PSI testing center. Re-examination fees are listed in the [Certification Examination Price List](#).



## IV. NITC Journey Level Heating, Ventilation, Air Conditioning & Refrigeration (HVAC)

### SCOPE OF WORK: NITC JOURNEY LEVEL HVAC

NITC Journey Level HVAC certification candidates are qualified individuals who can demonstrate skill in the practical installation, repair, and service of HVAC systems including air handling systems, ductwork systems, control systems, and piping for heating and cooling systems. A qualified individual may perform these tasks alone, or through the supervision of other individuals. Qualified candidates will have a general knowledge of national, state, and local requirements and industry codes and practices.

### EXAMINATION QUALIFICATION REQUIREMENTS

Certification candidates are expected to be experienced trades professionals who have completed a UA training program or equivalent. Candidates must document a minimum of four (4) years experience in the installation of HVAC.

### ABOUT THE EXAMINATION

The HVAC certification examination consists of a closed book multiple-choice one hundred question written examination. Two and one half (2½) hours are allotted for this examination.

Candidates must achieve a minimum score of seventy five percent (75%) to pass. Candidates will be notified in writing by either NITC, the training agency, or the association that requested the examination of a pass or fail result. Examination scores will be divulged in writing only to the examinee, or to the appropriate source. Candidates failing to achieve a passing score will be eligible for re-examination as soon as the next examination is scheduled.

Candidates may take written examinations at the NITC offices. Re-examination requires the submittal of a new fee.

### SUBJECT MATTER COVERED IN THE EXAMINATION IS GENERAL KNOWLEDGE OF HVAC:

Areas of concentration: Thermodynamics, Electrical, Electronics, Welding, Drafting, Hydronics, Market Refrigeration, Compressor Overhaul, Systems Analysis, Safety, Piping, Heating and Energy Management. The test will consist of approximately:

<b>%</b>	<b>TOPIC</b>
20%	<i>Thermodynamics</i>
22%	<i>Electrical/Electronics</i>
12%	<i>Piping/Construction/Welding &amp; Safety</i>
46%	<i>Hydronics/Market/Overhaul/Systems</i>
<b>100%</b>	<b>TOTAL</b>

## **REFERENCE MATERIALS**

Questions are extracted from these reference materials:

- Higgins, "Boiler Room Questions and Answers," McGraw Hill
- Cooper, "Warm Air Heating For Climate Control," Prentice-Hall
- Fowler, "Electricity: Principles and Applications," McGraw Hill
- Shelly, "Computer Fundamentals," PC Publishing
- "Understanding Solid-State Electronics," Texas Instruments Learning Center
- Shumaker, "Process Piping Blueprint Reading," Prentice-Hall
- "Understanding Electronic Control of Energy Systems," Texas Instruments Learning Center
- Skrotzi, "Basic Thermodynamics: Elements of Energy Systems," McGraw Hill
- Langley, "Electricity for Refrigeration and Air Conditioning," McGraw Hill
- Schneider, "Commercial Refrigeration," Business New Publishing
- Harris, "Modern Air Conditioning Practice," McGraw Hill

An NITC-approved proctor will administer the multiple-choice portion of the examination and also witness the practical portion at the approved testing location. Candidates are notified of a pass or fail result in writing by NITC.

Candidates failing to achieve a passing score will be eligible for re-examination as soon as the next examination is scheduled. Candidates may re-take their examination at the NITC offices or at a PSI testing center. Re-examination fees are listed in the [Certification Examination Price List](#).

## VII. RECERTIFYING YOUR NITC JOURNEY LEVEL CERTIFICATION

### RECERTIFICATION

These certifications are valid for five (5) years from issuance. Recertification of these certifications can be accomplished by successfully passing a twenty-five (25) question, non-proctored, multiple choice “open book” examination within thirty days of the expiration date of certification. Candidates must answer seventeen (17) of the questions (68%) correctly on the exam to achieve a passing grade.

The recertification test can be taken by either of two methods.

- 1) For a fee of \$40.00 take a computer-based recertification exam online at [www.testrac.com/nitc](http://www.testrac.com/nitc). A Testrac ID and PIN is required. Those can easily be obtained by going to [www.testrac.com/nitc](http://www.testrac.com/nitc) and selecting STEP 2, or by contacting the NITC office. Four (4) hours are allowed for the exam and results will be provided immediately at the completion of the exam.
- 2) For a fee of \$49.00 take a paper-based version of the recertification exam. This exam may be mailed to a certified individual, or sent to a training agency, employer, or association to be administered. After the completed exam is returned to NITC it may take up to 30 days for the exam to be scored.

Recertification candidates are encouraged to use the computer-based system.

#### **Important note about recertification:**

*Certification holders are responsible for keeping their certification current. NITC must be notified of any change in address. Changes may be made online, by telephone, or by mail.*

NITC **strongly suggests** taking the recertification exam within three months of the expiration date. Be aware that while a “grace period” of up to one year after the date of expiration is extended by NITC the individual whose certification has expired is not certified during the grace period. **EXPIRED MEANS EXPIRED**. Failure to recertify within one year of the certification expiration date will require the individual to take the original examination.

Fees are listed in the [Certification Examination Price List](#).