



National Craft Assessment and Certification Program SPECIFICATIONS

**HVAC Technician
(HVAC03_02)**
Released 2009.

Overview

This written assessment is a two-hour closed-book examination. You will be permitted to use a basic function, non-printing calculator during the examination. The assessment center will provide any necessary pencils. No extra papers, books, notes or study materials are allowed in the testing area.

Study Material

All NCCER written assessments are referenced to NCCER's curriculum listed in the content. You may order modules from Pearson (800.922.0579) or from NCCER's Online Catalog at www.nccer.org.

Assessment Development

All questions on each assessment have been developed and approved by subject matter experts from the respective craft. Assessment development and administration is under the direction of ProvTM, NCCER's testing partner.

Credentials

NCCER will send appropriate credentials (certificate, wallet card and official transcript) to the assessment center upon successful completion of the written assessment.

Training Prescription Reports

Each candidate will have access to individual results of the written assessment from Prov's website (www.provexam.com). This training prescription will include the overall score and results by topic area.

National Registry

Assessment results will be maintained in NCCER's National Registry and become a part of each candidate's training records. These records are stored and become a portable record of the candidate's training and assessment achievements.

Focus Statement

A journey level HVAC technician is able to work independently to do the following:

- Install residential, commercial, and industrial HVAC systems and their components.
- Use and apply trade math to daily applications.
- Interpret mechanical drawings, symbols and their application.
- Soldering, brazing, and piping practices.
- Apply and install venting for fossil fuel appliances.
- Apply and install gas fired-heating equipment.
- Understand furnace design and functions.
- Understand commercial airside and hydronic systems including various types of boilers, piping, chilled-water systems and their components.
- Measurement and control of air temperature, humidity, pressure, and velocity.
- Maintenance and repairs of diverse HVAC systems.
- Troubleshoot heating, cooling, and heat pump systems.
- Troubleshoot control circuits, electronic controls, and accessories.
- Troubleshoot air quality and energy conservation equipment.
- Refrigerant leak detection, evacuation, recovery, and charging.

Written Assessment Contents:

Module Number	Module Name	Number of Questions
00101-04 00106-04	Core Curricula: <i>Introductory Craft Skills</i>	4
03102-07	Trade Math	4
03104-07	Soldering and Brazing	4
03105-07	Ferrous Metal Piping Practices	4
03107-07	Intro to Cooling	6
03108-07	Intro to Heating	5
03109-07	Air Distribution Systems	4
03201-07	Commercial Airside Systems	5
03202-07	Chimneys, Vents, Flues	4
03205-07	Leak Detection, Evacuation, Recovery, and Charging	5
03206-07	Alternating Current	4
03208-07	Intro to Control Circuit Troubleshooting	6
03209-07	Troubleshooting Gas Heating	4
03210-07	Troubleshooting Cooling	6
03212-07	Basic Installation and Maintenance Practices	5
03301-08	Refrigerants and Oils	4
03302-08	Compressors	4
03303-08	Metering Devices	4
03305-08	Commercial Hydronic Systems	4
03307-08	Planned Maintenance	5
03309-08	Troubleshooting Electronic Controls	4
03311-08	Troubleshooting Heat Pumps	5
03312-08	Troubleshooting Accessories	4
03401-09	Construction Drawings and Specifications	6
03402-09	System Balancing	4
03403-08	Indoor Air Quality	4
03406-09	System Startup and Shutdown	5
03407-09	Heating and Cooling System Design	4
03408-09	Commercial and Industrial Refrigeration Systems	4
Total Number of Questions		131

The minimum passing score is 70.

A corresponding Performance Verification is available at nccer.org.