



# National Craft Assessment and Certification Program S P E C I F I C A T I O N S

## INSTRUMENT TECHNICIAN V3 (TINST12\_02)

Released May 2005

### 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 Contren® Learning Series modules listed in the content. You may order modules from Pearson (800.922.0579) or from NCCER's Online Catalog at [www.nccer.org](http://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 Prov™, 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 at [www.provexam.com](http://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

The instrument technician is expected to demonstrate competency in the following areas: calibration, commissioning, startup, maintenance, and troubleshooting. The technician also adheres to safe working practices at all times.

### Written Assessment Contents:

Module	Topic Area	# of Questions
12102-01	Electrical Safety	4
12107-01	Instrumentation Drawings and Documents, Part 1	4
12108-01	Gaskets and Packing	4
12109-01	Lubricants, Sealants, and Cleaners	4
12110-01	Flow, Pressure, Level, and Temperature	6
12201-03	Craft-Related Mathematics	6
12202-03	Instrumentation Drawings and Documents, Part 2	4
12204-03	Process Control Theory	6
12205-03	Detectors, Secondary Elements, Transducers, and Transmitters	5
12206-03	Controllers, Recorders, and Indicators	4
12207-03	Control Valves, Actuators, Positioners	5
12208-03	Relays and Timers	4
12209-03	Switches and Photoelectric Devices	4
12210-03	Filters, Regulators and Dryers	4
12305-03	Instrumentation Electrical Circuitry	4
12306-03	Grounding and Shielding of Instrumentation Wiring	4
12401-03	Digital Logic Circuits	4
12402-03	Instrument Calibration and Configuration	7
12403-03	Performing Loop Checks	4
12404-03	Troubleshooting and Commissioning a Loop	4
12405-03	Tuning Loops	4
12406-03	Programmable Logic Controllers	4
12407-03	Distributed Control Systems	4
12408-03	Analyzers	4
	<b>Total Number of Questions</b>	<b>107</b>

*The cut score for this assessment is 70%.*